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AUTHOR'S NOTE

THIS book has been written with the aim of presenting an absolutely truthful account of the life and work of Dr. Crawford Long, and with the determination that if the writer discovered that inadvertently any error had been made, it would be corrected. This statement explains this note.

It has been stated that Dr. Long was a charter member of the Georgia Medical Association, known as the Georgia State Medical Society, organized March 20, 1849. That this was a reasonable supposition may be judged from the contents of a letter from the secretary of the body, Dr. Charles Quintard, dated January 4, 1850, which proves that Dr. Long was in perfect accord with the organization.

Upon investigation the author finds that on the first meeting no formal business was transacted except the passing of a resolution that the Legislature be requested to pass a certain bill. The writer also finds that Dr. Long joined this Society at a meeting in Savannah, April 1853, and at that occasion read a paper on his discovery of sulphuric ether as an anesthetic.

—FRANCES LONG TAYLOR

ATHENS, GEORGIA
November, 1927

CRAWFORD W. LONG
& THE DISCOVERY OF
ETHER ANESTHESIA



(Frontispiece.)

CRAWFORD W. LONG, AGED TWENTY-SIX.
(FROM A CRAYON PORTRAIT MADE A FEW MONTHS AFTER
HIS FIRST USE OF ETHER AS AN ANESTHETIC.)

CRAWFORD W.
LONG
& THE DISCOVERY OF
ETHER ANESTHESIA

BY
FRANCES LONG TAYLOR

WITH A FOREWORD BY
FRANCIS R. PACKARD, M. D.

WITH EIGHT FULL-PAGE PLATES



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FOREWORD

IN any case of controversy it is of the utmost importance to secure all the first-hand evidence possible. Although the facts bearing on the discovery of ether may be summed up in a few paragraphs and have long been clearly established, nevertheless from time to time echoes of the furious battle which it aroused are heard. There are two outstanding facts which emerge from the mass of statements, claims and contradictions bearing on the subject, i.e., Crawford W. Long was the first man to use ether for the purpose of producing surgical narcosis, and W.T. G. Morton was the first to demonstrate its use before a professional gathering. The hero of this biography has been criticized because he did not proclaim his invaluable discovery to the world immediately after it was made. The reasons for his tardiness are well put forth in the following pages. Long and Morton were the direct antitheses of one another. Long's use of ether as an anes-

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thetic occurred in an accidental manner Morton's discovery of ether was the result of a deliberate search for an agent to relieve pain during a surgical procedure. Long practiced in a small rural community where he had no opportunity to talk over the interesting fact he had observed with professional colleagues, no hospital in which he could observe its effects on a number of cases; he could only try out his discovery on the scattered cases in which it was of practicable value as they occurred in the daily routine of his work. Morton made his discovery in one of the medical centers of the United States and was afforded the opportunity to demonstrate it before the staff of one of the best hospitals of the day. Nevertheless between 1842 and October 16, 1846, when Morton etherized a patient at the Massachusetts General Hospital, Long had undoubtedly used ether many times as an anesthetic.

The little book which follows is the result of a lifetime of filial devotion. As a young woman Mrs. Taylor was intimately acquainted with all the details of her father's work. He was too modest and retiring a man to push his claims as vigorously as the

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other candidates for the honor of the discovery. While Morton and Jackson were clamoring for pecuniary rewards and personal fame, Long pursued his daily avocations and only ventured to issue a statement of what he had done without making any claim for recompense. Since his death his daughter has labored unceasingly to place his just claims in their true light and in the following narrative the reader will find an interesting recital of the entire matter, a beautiful picture of a doctor of the old school whose life was passed in doing good deeds, the memory of which is still enshrined in the hearts of his neighbors, and whose claims to remembrance by a large public will be secured by her work.

FRANCIS R. PACKARD.

PHILADELPHIA, PA.

November, 1927.

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I

INTRODUCTION

THIS little sketch of an old-fashioned Georgia doctor was not originally written for publication, but for Dr. Long's grandchildren, that they might learn of his unselfish Christian character, and with the hope that his example might incite them to noble thoughts and deeds. For this reason the intimate details of his household are given. There was also the desire that they should know of the Southern gentleman of a vanished day, with the tremendous responsibilities that were his by inheritance and the duties they involved, the loss of fortune by reason of the war between the states, and the brave struggle against poverty. It is also fitting that they should have the facts of his discovery and professional career, as taken from his private papers and letters.

The persuasions of friends have induced me to publish these simple annals, fully

conscious that they have not the merit of being finely phrased.

I cannot say, as did Canning's Needy Knife Grinder: "Story, God bless you, I've none to tell, sir." I have a story to tell of one whose life, in many ways successful and happy, was in one respect tragic, tragic because his heart's desire to be known as a benefactor of mankind was not universally recognized. It is eighty-five years since the young physician, only twenty-six years of age and almost a stranger in the small town in which he had located six months before, performed the first painless operation in surgery, on March 30, 1842.

The patient, the four witnesses of the two operations on Venable and the surgeon, who was my father, Crawford Williamson Long, are sleeping the last sleep. As secretary to Dr. Long during the last years of his busy life, copying the papers which bore upon his discovery of ether anesthesia, my frequent conversations with him and correspondence with the witnesses of the earlier operations have given a clearer knowledge of his work to me than to any other person now living.

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Many sketches and monographs have been published concerning him and his discovery but little is known of his personal characteristics except by his friends and surviving children. The desire that his grandchildren should learn of his noble, unselfish life and also of his wife, who was an inspiration in his days of prosperity and his comfort in those of adversity, has prompted me to write this sketch. A life so exemplary and full of high ideals from his boyhood to his death was largely the result of heredity and environment and he realized that it was a call to high endeavor. He knew also that "character is the only exact measure of anyone's might in the world of action"; he was thus animated by high ideals. Regarding his chosen profession he said: "My profession is to me a ministry from God. I am as much called upon to practice medicine as a minister is to preach the Gospel."

With these views, it is not to be wondered at that when a young man he would talk to his mother about the horrors of surgical operations, and that some method should be found to alleviate the sufferings of patients under the knife. His thoughts

dwelling upon this subject, his alert mind found the remedy. He always said in reference to his discovery of anesthesia by the use of sulphuric ether: "The mystery is that it was not discovered long before."

II

PARENTAGE, BIRTH AND EDUCATION

SAMUEL LONG, the grandfather of Crawford Williamson, was born in the province of Ulster, Ireland, and there married Ann Williamson. On the same ship with his two brothers, James and Andrew, he sailed for America and settled in the Cumberland Valley near Carlisle, Pennsylvania, where many Scotch-Irish Presbyterians had located.

One hundred and forty years later I met in London a distant kinsman, a King's Counsel and a member of Parliament from Tyrone. As we drank tea on the terrace of the Houses of Parliament he related many facts concerning the Longs and subsequent correspondence has revealed many of the family traits.

I quote from a letter written by a descendant of Samuel Long's brother who remained in Ireland:

“I 5 I”

It is well known that the Longs were at the defense of Londonderry. Taking an active and fearless part in the daring deeds of bravery of the siege, from the closing of the gates to the 18th of December, 1688, by the thirteen apprentice boys of Derry in the face of King James' Army until they were opened on the following 12th of August, 1689. Henry Long was Mayor of Londonderry shortly after the siege. For political reasons the Longs, with others, were dispossessed of their lands, the King giving them to his favorites along with titles of nobility. These newly made lords were generally absentees who spent their time in London and on the Continent. As the years passed the Longs became once more very prosperous as did many others in the province of Ulster. The agent of the absentee landlord called to collect his rent. "On hospitable thoughts intent" a fine dinner was served to which he was invited. At the close of the dinner he arose and said: "You seem to be prosperous in every way and you can afford to have silver on your table (which was rare in those days), your rent will be increased."

The reply was "No! we will go to America." To America they came and the three brothers fought for its independence. Later one brother went west, one remained in Carlisle and Samuel came south. From

the diary of an old and famous Presbyterian minister of his day, I learn that Stephen Groves and John McCurdy in company with Samuel Long and others came from Cumberland County, Pennsylvania, and settled in Madison County, Georgia, in 1788.

The company left Pennsylvania early in the autumn of 1787 and expected to reach their destination before December 25. However, in Abbeville, South Carolina, they learned that the Creek Indians had made a hostile raid into the white settlements of upper Georgia and fearing to proceed further at that time they rented land near Abbeville, raised a crop in 1788 and then in the fall sold their crops and moved on to their final destination.

These pioneers suffered many hardships, living in log cabins until they could erect sawmills and build permanent houses.

They brought with them wheat for planting which they were compelled to take to the older settlements in South Carolina to be ground into flour until flour mills could be built.

Energy and perseverance conquered all obstacles and in a few years the little colony

was comfortably established with good homes, schools and a church. The pulpit of the church was beautifully carved, as among the members was a skilled carver of wood.

The chronicler adds quaintly: "Samuel Long was a peaceable upright man who attended to his own business and troubled nobody." He was one of the founders of the second Presbyterian church built in Georgia and was an elder. Old New Hope it is called to this day. He and his wife are buried in its churchyard.

As far back as we go we see that Crawford Long's paternal ancestors were men of position: quiet, reserved gentlemen but of forceful character and intellect, industrious and thrifty. They were interested in public affairs, founding churches and endowing schools.

Crawford Long's father, James Long, was born in Carlisle, Pennsylvania, in 1781. When he was nine years of age his father, Samuel Long, at the head of a number of Scotch-Irish Presbyterians, came south and after reaching Georgia, settled at old Petersburg, now known as one of the dead towns of Georgia, but at that

time the most important place on the Savannah River above the cities of Savannah and Augusta. Realizing that Petersburg would not prosper they moved into the fertile lands of the Broad River in Madison County, Georgia.

James Long was studious, fond of reading and received the best advantages the country then afforded. He inherited some money and negroes from his father and while yet a young man, by his industry and energy, had accumulated a fortune.

Progressive in every way, he owned the first store in the town of Danielsville and was its first postmaster. He was clerk of the court for years and to this day his books, written in a beautiful hand with a quill pen and without blot or erasure, are shown at the courthouse as models in every respect.

He was the leader in all new enterprises and established on one of his plantations the first flour mill in that part of the state. From long distances wheat was sent to his mill to be ground into flour. I inherited a dress made of a surplus material called silk bolting, a beautiful transparent cloth ordered to be used in refining the flour. James Long also became a large stockholder,

at its inception, of the Georgia Railroad Company, one of the first railroads to be built in the South. For many years it paid no dividends but eventually the stock became very valuable.

James Long founded the academy at Danielsville and was always deeply interested in its welfare. He also endowed the school, but the fund was unfortunately invested and was lost during the Civil War. It was he who engaged the teachers, who were generally from a northern state. The last one he employed was a most cultured woman who later married his business manager and secretary. She died a few years ago, cherishing and revering his memory, for it was he who cordially welcomed the young stranger to his home where she was treated with the greatest consideration. James Long was so deeply versed in the law that William H. Crawford and other lawyers frequently consulted him upon legal questions.

For years he represented his county in the Legislature, and his district in the state Senate. In those days politics were at fever heat in Georgia and even socially the line of demarcation was so strong between the

Whigs and Democrats that the children of opposite parties refused to play with each other. James Long was an ardent Whig, his brothers Democrats, and as a consequence when he ran for office his brothers voted against him.

James Long was an elder in the Presbyterian church, of exalted faith and uncompromising character; a typical Scotch-Irish Presbyterian elder of the old school who held family prayers and reared his children to recite the shorter catechism from beginning to end without a question being asked. He was tall and grave. I recall him as always clad in black broadcloth with black satin vest and high silk beaver hat, in winter wearing a long, voluminous, black broadcloth cape. He was a dignified figure and I still often wonder if he ever unbent from that dignity and if he was garbed in that manner when he rode over his plantation.

He was fond of reading and had a fine collection of books, among them early editions of Shakespeare. My childhood delight was an illustrated book of plays which had been acted in Covent Garden, London, before the War of the Revolution, among them "The Beggar's Opera." Before

me lies one of the old books, "A Discourse on Idolatry," by Edward Stillingfleet, chaplain in ordinary to His Majesty, Charles II, in 1673. The *Tattler*, the *Spectator*, Burton's "Anatomy of Melancholy," the *Gentleman's Magazine*, published in London, the *Saturday Evening Post* in newspaper form, and *Godey's Lady's Book* were among the books on his shelves. There must have been lighter literature also as I fell heir to one of Miss Edgeworth's tales, entitled "Rosamond and The Purple Jar," which had belonged to my father when he was a boy.

James Long was an indulgent father and husband. As a master he looked upon his slaves as a sacred trust. He governed them with firmness and kindness. Each family had its own house; one I recall had four rooms and a porch and was occupied by three generations. The oldest did not work but looked after the youngest. One of my greatest pleasures was to be permitted to play with the children at "Granny Lucy's," who on such occasions treated us to ginger cakes and persimmon beer, or molasses candy. When "old Marster" died suddenly of cholera there was mourning in the quarters as well as in the "big house," as the

The first patient to whom I administered
 ether in a surgical operation was Mr. James M.
 Beville who then resided within two miles of Lenoir
 and at Pontotoc in Cobb Co. Ga. - Mr. Beville
 consulted me on several occasions in regard to the
 propriety of removing two small tumors situated
 on the back part of his neck, but would postpone
 from time to time having the operation performed
 from dread of pain. At length Mr. Beville
 turned to him the fact of my relieving tumors
 while under the influence of ^{ether} ether, without suffering
 and as I knew him to be fond of and accustomed
 to inhale ether, I suggested to him the probability
 that the operation might be performed without
 pain and proposed operating on him which ended
 to my pleasure. - He consented to have one
 tumor removed and the operation was performed
 the same evening. - The ether was given
 to Mr. Beville on a towel and when fully under
 its influence I ~~excised~~ ^{excised} the tumor.
 It was encephalic and about half an inch in diameter.
 The patient continued to inhale ether during
 the time of the operation and, when performed
 it was over, seemed unconscious, until the
 tumor was shown him. -
 He gave no evidence of suffering following the
 operation, and assured me, after it was over,
 that he did not experience the least degree of
 pain from the performance. - This operation
 was performed on the 30th March 1842.

FACSIMILE OF MANUSCRIPT PAGE OF CRAWFORD WILLIAMSON
 LONG FROM HIS ADDRESS READ BEFORE THE GEORGIA STATE
 MEDICAL SOCIETY

master's home was termed in antebellum days.

James Long's closest friend was William H. Crawford, who was once a candidate for President of the United States and whose intellect and presence were so commanding that when he was minister to France, Napoleon said that Crawford was the only man for whom he felt reverence. James Long named his first child Crawford in honor of this friend and contemporary.

Crawford Long's mother, Elizabeth Ware, was born in Amherst, Virginia, of English ancestry. Edward Ware, her father, espoused the cause of the colonists and fought in the Revolutionary War, entering the army at the age of sixteen. Sometime after its close he emigrated to Georgia with his family and slaves and made his home on a plantation in Madison County. Among his possessions was a considerable amount of continental money. Believing it would never be redeemed and wishing to keep it as a memento it was used in papering a small room. Later when by act of Congress the paper money became valuable, this was so firmly attached to the wall that its only worth was from association.

The house in which Elizabeth Ware lived as a girl is still in good preservation. It is a two story building, necessarily large, as there were fourteen children. It was the first house in that portion of the state to have glazed windows and was built in the old colonial style.

Elizabeth Ware was a beautiful woman and had many suitors. At the age of twenty-four she married. She was warm-hearted, generous, sympathetic and impulsive. She was by birth and rearing an Episcopalian. It was said by the sober Presbyterians that she was worldly, loving dress and the pomps of life. Her husband, the Presbyterian elder, was grave and dignified, but so just and good a man and neighbor that it lessened the awe one was wont to feel in his presence.

Life in those days was very simple. The Southern planters were hospitable and guests were always heartily welcomed. Visitors frequently remained for months. James Long's home was not far from the Presbyterian church. On Sundays there were often as many as twenty visitors from the surrounding country for dinner. Preparations as far as possible were made on Saturday.

In the home of the Southern planter there was an abundance of all the fruits of the earth. To have sold fruit, milk and butter, chicken and eggs would have been considered mean. A neighbor who lacked these things was welcome to all he wanted. It is no wonder that we were considered a prodigal, extravagant people. Had we been near the great markets of the world, our lives would probably have been different. Circumstances and environment influenced us greatly. Time with its changes has also changed our mode of living.

The most beautiful devotion existed between James and Elizabeth Long. It was the husband's pleasure to surround his wife with such luxury as was obtainable in those days. For many years before the day of railroads handsome clothing and furniture were brought to her by wagons from Charleston, nearly three hundred miles away. Yet she was no idle butterfly and looked well to the ways of her household.

During her husband's absence, as state senator, or when other business called him from home, the affairs at the homestead and the large plantation were all under her

control. No overseer was employed, but the most trusted and faithful of the negro men served as foremen, and to "old miss" they made their reports and from her received their orders.

All cloth used in making garments for the slaves as late as 1854 was spun and woven under her direction on the plantation. A miniature factory with its wheels, carding warehouses, and hand looms was always busy making cotton goods for summer and woolen goods for winter wear. It was she who superintended the making of these goods into clothing. Aside from the women who did the plain sewing there were young women whom she trained to be proficient with the needle. Some of them were even taught to embroider beautifully on linen. These seamstresses, she fondly planned, were to descend to her children and grandchildren, little dreaming that a time would come when there would be no such thing as inheriting slaves.

In sickness it was she who saw that her servants had every attention, so they not only honored but loved her. To James Long and his wife came the neighbors who were destitute and afflicted, knowing they would receive

sympathy and relief. They were the leaders in every enterprise for good and although it is sixty years since they passed away, their memories are still loved and honored.

Elizabeth Long was a devoted, conscientious mother, ambitious for her children, yet always instilling into them principles of truth and justice. She was so strict in their manner of expression that they were never known to use a slang phrase. Profanity was forbidden to the slaves.

One can see that in her sphere, which will seem very limited to many, she was in reality a woman of great executive ability. Her fine sense, kindness of heart and dignity of manner gave her an ascendancy among her associates, and inspired the greatest reverence and affection from her children.

After a very happy and prosperous life of more than sixty years, her first deep sorrow came from the death of her brother and her husband from cholera. She nursed them and others unflinchingly until she herself was stricken with the dreadful disease. Although she recovered, her health and former cheerful, brave spirit was broken, and two years later, in 1854, from an apparently slight illness, she died. As children

we heard the elders say: "She died of a broken heart, she could not live without her husband."

Crawford Long was born November 1, 1815, in the home to which his mother was carried as a bride. It is a two-story house of eight rooms, the windows having quaint little panes. It is situated on a high hill overlooking the little town of Danielsville, which is today seven miles from a railroad. Once the house had large grounds and a beautiful grove. The colonial porch has been taken away and a veranda substituted. Nothing familiar is left except some fine old oak panelling and two carved mantels. The negro quarters have fallen down and there is little to remind one of its earlier days.

Crawford Long was a quiet, studious boy. It is said that his father heard him reading the Bible aloud at the age of five. All his life he was a faithful student of the Book and was governed by its precepts. He was a normal boy, loving horses and dogs, swimming, fishing, jumping and all athletic sports. He was a fine shot even during his last years.

When Crawford Long was fourteen years of age he was prepared to enter Franklin College, now the University of Georgia, and

allowed to enter so young as a special favor to his father who was an intimate friend of the president, Dr. Alonzo Church.

At this time Alexander H. Stephens was in a more advanced class in the college. For some reason they became roommates in the first building which was erected in Athens and used as a dormitory for the students. It has long been known as "the old college."

As Mr. Stephens was the senior member of the student body and Long the junior they were known as Daddy and "the baby." In later years Daddy (Stephens) became vice-president of what was once the Southern Confederacy, and in his own state was called "The Great Commoner," while "the baby" by many is known as "The Discoverer of Anesthesia."

Through loyalty to his college-mates Crawford Long came near expulsion from college. Having witnessed some prank which his friends had played he was called upon to testify. This he refused to do in spite of persuasion and threats, but it prevented his taking the first honor in his class.

He had a retentive memory and was a good student, and in August, 1835, graduated, at the age of nineteen, with the second

honor and the degree of A.M. Francis Bartow received the first honor. He became a distinguished lawyer, later a general in the Confederate Army, and was killed at the first battle of Manassas.

The friendship between Alexander H. Stephens and Crawford Long continued through life. Politically they belonged to the same party and held the same views in the fateful years of 1860 and 1861. Both opposed secession yet both deemed it right to throw their fortunes with their state when it separated from the Union. The tie which bound these two Georgians through life still holds them, as Georgia has selected them to represent her in Statuary Hall in the national capitol at Washington.

Some of the most distinguished men of Georgia were contemporaries of Crawford Long at Franklin College. Among them was Howell Cobb, who later became governor, senator and secretary of the treasury during Buchanan's administration, and leaving the arena of politics for the arena of war, was made general in the Confederate Army. Here also Long knew Senator Herschel V. Johnson and General Bartow, but his closest friend was Alexander Stephens.

Undoubtedly the embryo physician must have received inspiration from association with such men as these.

I fancy that in those days men were more ingenuous than now or that it was the fashion to give vent to sentiment. Every college boy had his album in which undying expressions of friendship were written in a style which now seems quaint and stilted. As an example, I quote these lines from my father's album:

Franklin College,
Athens, July 23, 1825.

Dear Crawford:

If I had ever been your classmate, I should even then have considered it an inestimable privilege to have been counted worthy to sully a pure page in your remembrance book; but with how much warmer feelings do I (being a Junior) hail an opportunity that thus presents itself of subscribing my name in this little repository of your friends.

Crawford! whenever in some future day, you'll be looking through this little book and your eye shall light upon this small token of friendship, I humbly ask, pass it not by without one kind thought for your sincere friend

Gideon D—

A little more than thirty years later, soon after the close of the war between the States, a dignified man, evidently a gentleman, approached me as I was standing on the front veranda of my father's home, and in a courteous manner asked if the mistress of the house wished to buy any brooms, that he was selling them, and as proof had one as a sample. There was such a pathetic dignity about him that the sympathies of the household were aroused. It was hard to realize that a cultured gentleman should be engaged in so lowly a calling as peddling brooms. Inheriting land and slaves, he had lived for fifty years a life of luxury until stripped of them by the misfortunes of war. Bred to no profession and knowing nothing of manual labor, he was glad to do anything to make an honest living. Humiliated and broken by misfortune, he was a tragic figure. His old college friend did not fail to succor him, for although he, too, was in great straits, Gideon D.'s necessities were greater.

III

MEDICAL EDUCATION AND EARLY PRACTICE

AFTER my father's graduation, August, 1835, he returned to his boyhood home near Danielsville. His father deemed it best on account of his youth that he should remain there a year before studying his chosen profession, medicine. This year was not spent in idleness but in teaching, as principal of the town academy. Some of his pupils were older than he. At the close of the scholastic year, he read medicine with Dr. Grant of Jefferson. Later he spent a year at Lexington, Kentucky, attending the Medical Department of Transylvania University. He made the long and fatiguing trip alone on horseback, with such clothing as was necessary for the journey in his saddle-bag. His route was through the mountains of western North Carolina and eastern Tennessee. The Indians had not all been

removed. The whites were simple, kindly, hospitable people, of Scotch-Irish descent. In these mountain fastnesses is to be found the purest Anglo-Saxon blood in America. Many the old English Songs he heard sung in the cabins, and the children were playing the same games that are still common in the rural districts of the mother country. Particularly interesting to him were old words common in Shakespeare's day, for he was a great reader of Shakespeare. One of the words was "holp" as: "He holp me do it." Many others are even now in common usage in these mountains, but obsolete elsewhere.

After several weeks of climbing mountains, fording streams and following trails through the forests, he reached the fertile fields of Kentucky. In later years he often expressed his admiration of the blue grass region with its fine cattle and horses. Possibly it was this association that made him love blooded horses and enjoy the races at the county fair.

When in Lexington he frequently visited Ashland, the hospitable home of Henry Clay. His father was an ardent supporter of Mr. Clay, which perhaps influenced the

latter to treat the young Georgian with special consideration.

It was his desire and his father's determination that he should have the best medical instruction to be obtained in America. In 1838 he went to Philadelphia and entered the Medical Department of the University of Pennsylvania. "Nowhere else could he have found the scientific traditions, the intellectual stimulus to original thought and deed, the 'atmosphere' in other words, that was favorable, probably essential, to his later achievement."

The University of Pennsylvania was first in renown among the twenty-eight medical schools of the country, and possessed the ablest faculty in the United States. The buildings were at Ninth and Chestnut Streets, where the Post Office now stands. On the rolls of the University were 400 medical students, over one-seventh of the entire number in the land.

Philip Syng Physick, the pupil of John Hunter and the father of American surgery, died during Long's first course. At the time of his death he was emeritus professor of surgery and anatomy. He was the first to use catgut as a ligature material, devised

the stomach tube and many useful instruments, and advised the treatment of ununited fracture by the seton.

William Gibson, the pupil of Sir Charles Bell, was the professor of surgery. While traveling in Europe he had been present as a spectator at the battle of Waterloo and been wounded by a stray bullet. He was the friend and correspondent of Lord Byron. In 1819 he was called from the University of Maryland to succeed Physick in Pennsylvania. He was the first man to tie the common iliac artery (1812). He twice did a successful caesarean section on the same patient, and saved the mother and both children. Nathaniel Chapman, the wit, critic, booklover, social light, jovial companion and scientist, was professor of practice of physic and clinical medicine. He stood without a peer as a practitioner and, in spite of a congenital speech defect, was one of the greatest teachers in America. Chapman's book on therapeutics was widely celebrated.

George B. Wood, the profound scholar, the keen observer, the original thinker, taught *materia medica*. With Franklin Bache he edited the *United States Dispensatory*.

For many years he practically determined the views of the whole profession on ethics and practice. His lectures were the pride and glory of the university and had immense influence in moulding the minds of the students. No man who has held a chair in the university ever brought greater reputation to it.

William E. Horner, he of the feeble frame, melancholy temperament, scholarly faculty and original bent, was professor of anatomy. He is particularly remembered as the founder of St. Joseph's Hospital and the discoverer of the tensor tarsi, which is still called Horner's muscle. Samuel Jackson, who did so much to introduce the principles of Laënnec and Louis to the American profession, was professor of institutes of medicine.

Hugh L. Hodge, who had been forced to abandon a surgical career because of impaired sight, was professor of midwifery, having defeated Charles D. Meigs for the chair. Hodge's forceps and pessaries were known all over the world.

Robert Hare was the celebrated professor of chemistry. He had been a fellow-student of Silliman, and when only twenty years of age

had invented the oxyhydrogen blowpipe. He was one of the ablest chemists and electricians then living, was a most impressive lecturer and a highly successful experimenter.

Such were the men of the faculty of 1838 and 1839, the men to whom the young Georgia student listened, the men who helped to guide and direct his mind. The session began November 1, according to the catalogue; it ended "about the first day of March ensuing." Commencement was evidently a movable feast, for the catalogue states that it is "held generally about the first of April." No textbooks were recommended in the catalogue, but we know that students used the "Syllabus of Wood's Lectures," Chapman's "Therapeutics," Gibson's "Surgery," Horner's "Anatomy" and Hare's "Chemistry."

Blockley stood where it does now, and some of the buildings are very little changed externally. Agnew says that at this period Blockley was "the great clinical school of the country." Every Saturday morning many busses gathered at Ninth and Chestnut streets, and crowds of students rode out to clinical lessons within those grim walls. Lectures were given by Samuel Jackson,

Robley Dunglison, Joseph Pancoast and William W. Gerhard. J. C. DaCosta speaks of Gerhard as "the greatest observer and clinician America has produced." The students also attended the clinics of William Norris, George B. Wood, John Rhea Barton and John K. Mitchell at the Pennsylvania Hospital.

Dr. Dudley Buxton of London states that during the first half of the nineteenth century, there was an odd class of persons who wandered about the country, both in England and in the United States, lecturing in public on chemistry. During the course of the lecture it was the custom to invite persons from the audiences upon the stage to inhale nitrous oxide or ether vapor for the purpose of provoking exhilaration, excitement and mirth-provoking antics. This first began with the use of nitrous oxide, but soon ether became the favorite, for the reason that it was more easily manipulated.

Some of the Georgia medical students boarded with two Quaker maiden ladies at the corner of Nineteenth and Market Streets. After attending one of these lectures they locked themselves in a bedroom and tried the effects of ether for the purpose of

exhilaration, and not from any scientific motive.

Later, about 1840, these wandering lecturers came south, using nitrous oxide or "laughing gas" as it was called, arousing not only merriment but the wonder of their audiences, and in November or December, 1841, Crawford Long introduced the use of ether as an exhilarant in the little town of Jefferson, where he had located the preceding August.

After his graduation in medicine in 1839, he went to New York to perfect himself further and spent eighteen months "walking the hospitals," specializing in surgery and witnessing much suffering. He attained such a reputation for skilful surgery that he was advised to go into the Navy but yielding to his father's wishes he decided to return to Georgia.

While in New York he had the opportunity to hear Valentine Mott, Kearney Rogers and Willard Parker. He had obtained the best medical training and felt qualified to begin practice in a large city, preferably Philadelphia, but from filial duty he located in the small town of Jefferson, Jackson County, buying the

business of his old preceptor, Dr. Grant, who later became one of the distinguished physicians of Memphis.

The contrast was great between the busy life of the two largest cities in the United States, Philadelphia and New York, and the small village of a few hundred inhabitants, surrounded by plantations of slaves, the planters' families being practically the only white people living in the country. This little town he considered only as a temporary home until a better opening in the South could be found. Meanwhile he pursued his studies. In an old journal written by his wife, then only sixteen years of age, she says rather pathetically: "The doctor is so absorbed in his professional duties and his books that I see but little of him."

Jefferson was 140 miles from a railroad. Much of the time in winter the dirt roads were impassable for vehicles, swamps were undrained and streams must be forded. A journey of twenty miles was often an all-day expedition full of thrills and dangers.

In 1839 there was published in New York, by one of the most reputable houses of that day, a periodical known as *Chapin's United States Gazetteer*, in which there were a

number of interesting facts relative to Georgia, among them the following:

"The population was 516,823 of whom 217,530, nearly half, were slaves. The chief towns were Savannah, Augusta and Milledgeville." Then follows a description of the topography of the state and its various products. Mention is made of the gold mining in the Blue Ridge. It continues: "Until recently a large portion of the state was occupied by the Cherokee Indians and the western part by the Creeks who have been recently removed to the lands assigned them by the United States west of Arkansas."

Among the railroads mentioned was the Augusta and Athens, fourteen miles in length, which for many years was the only railroad outlet for northeast Georgia.

The population of the city of Augusta, white and colored, was 6690; that of Milledgeville, the state capitol, 1559, and of Savannah, the largest city in Georgia, less than eight thousand. Knowing these facts, is it any wonder that news travelled at a snail's pace? As late as 1857 a trip from Athens, Georgia, to New York City, now made in twenty-four hours, required almost

a week of intermittent travel. The first day one leisurely journeyed to Augusta (120 miles distant) where the night was spent unless one was reckless enough to travel at night. From a letter dated Baltimore, September 13, 1857, I quote a recital of the delays experienced by my father on such a trip.

You will see from the heading of my letter that I have met with my usual luck and am again detained in this city for a day. This has happened to me for the three last times I have started to New York. We arrived this morning at nine o'clock and will remain until some time tonight. We missed connection at Weldon which threw us about twelve hours behind time and this detention here will make us about twenty-four to thirty hours later getting to Philadelphia than expected. We will however reach Philadelphia tomorrow in time to transact some business, if we meet with no accident.

At Augusta we were advised to make the route through Columbia, S. C. and strike the Wilmington line at Weldon, N. C. The Wilmington and Manchester line, the one I have usually traveled, passes through a very swampy country, and for miles over trestles and bridges, on which several accidents have occurred lately.

A detention of one night in the swamps is almost certain to produce fever.

Although well I am very much fatigued. During the described trip there was a delay of a day in Columbia which gave me an opportunity to visit the college with its handsome campus. Returning to the hotel I formed the acquaintance of an agreeable gentleman who proposed going with me to see the garden of Mrs. Wade Hampton, which he informed me was the greatest attraction in Columbia.

In that day in the South both vegetable and flower gardens were presided over by the mistresses of the homes, many of whom were fine botanists and had wonderful collections of flowers. Friends exchanged seeds, slips and rooted cuttings and a pretty custom of naming a rooted rose for the giver existed. Matrons and maids were wise in garden-lore, proficient in budding and grafting, and supervised the trimming of hedges and the shaping of evergreens into various forms.

The colored gardeners under their tutelage became wonderfully expert. This garden was designated as Mrs. Wade Hampton's garden.

I accompanied him and was delighted with my visit. Of all the private or public gardens I have seen, I have never seen one which would compare with it for beauty. It is large, comprising a number of acres, and has every variety of evergreens and hot house plants. The most beautiful thing in the hot house is a tropical vine in full bloom with the most beautiful flowers I have ever seen. Near it is the orange, the lemon, and the banana in bloom, the flowers of each beautiful but they do not compare with this vine. I have not time to give you any idea of the great variety of flowers in the hot house, but beautiful as they are I was more interested in the garden which is filled with evergreens.

Of one of the avenues he writes:

It presents the appearance of a green wall about fifteen feet in height, either side of the walk, and trimmed to wall-like dimensions. At the ends of the walk mentioned are summer houses. One of these is built of shells of every color, size and variety, the ceiling made of the handsomest. It is impossible to describe it to you. The other made of sticks and mosses which is very handsome. A number of other summer houses are in the garden. I think my visit will be of benefit to me.

I have learned something of the trimming of the Osage or wild orange which will be useful.

Before writing of the beginning of my father's medical career, it may be of interest to know that he performed his first surgical operation at the early age of five years, chopping off three of his sister's fingers. The two were playing a game in which she snatched her hand from a block before his hatchet could descend upon it. But for some childish reason she did not withdraw her hand the last time, with the result that her fingers were almost severed from her hand. The little boy, greatly distressed at this tragic occurrence, persistently held the fingers in place until his mother could reach the scene. It was she who united the soft tissues that remained by the application of sugar, bandaged and saved the fingers, though they were scarred for life. Twenty years later he performed another operation, not as the first, by accident, but with purpose, to decree the death of Pain.

At the time he located in Jefferson to begin his chosen profession of medicine, he was nearly twenty-six years of age. Although a young man, he soon acquired a practice which extended for miles into the country. In order to reach his patients, dangerous streams had to be forded and

long drives taken over rough and lonely roads. At night he rode his favorite horse, Charley, a large grey which, on account of its sagacity and surefootedness, was invaluable to him. Once called to make a visit many miles distant on a stormy, pitch-black night, he, as was often his custom, gave Charley the reins. When he arrived at a bridge over a river it was with difficulty that the horse could be persuaded to cross it, but with slow and hesitating steps he finally did. His master spoke of this after reaching his destination, and realized the danger he had been in when he was told he had crossed on a narrow foot bridge, which was a partial substitute until a new one could be built to replace the old, which had been torn away. He endured all the hardships that fell to the lot of a country doctor.

Although a small town, Jefferson had a number of young men of refinement and culture who were interested in the affairs of the great outside world as communicated in their infrequent newspapers and magazines. Dr. Long's office became the rendezvous for these. Sometimes they played games of old-fashioned whist or

checkers, again they discussed the writers of the day. Dickens delighted them with a new phase of the novel. His stories clutched their hearts as well as the hearts of humanity, and they enjoyed his new kind of humor. They were enthralled by the adventures of Mr. Pickwick and his friends, with Nicholas Nickelby and Oliver Twist. My father kept his old copies of these stories with the wonderful illustrations of Cruikshank. No one who has seen them can forget "Oliver asking for more," "The Beadle's courtship," "Fagin and the Artful Dodger," "Bill Sykes and poor, ill-fated Nancy." Washington Irving's "Sketch Book" was a favorite also and Longfellow's ballads enchanted them. The world was full of ferment, investigation, speculation and novel ideas. These they pondered over, accepting this one, dismissing that, interested in all.

IV

THE FIRST USE OF ETHER AS AN ANESTHETIC

ON one occasion some visitors importuned my father to let them inhale nitrous oxide gas as they had heard of its exhilarating effects. The wandering lecturers on chemistry had journeyed to the larger towns in the South and were arousing the wonder of the people at their fantastic exhibitions. Having no nitrous oxide gas he provided a substitute, but let him give in his own words the events of that memorable evening:

In the month of December, 1841, or in January, 1842, the subject of inhalation of nitrous oxide gas was introduced in a company of young men in this village; several persons present desired me to produce some for their use. I informed them that I had no apparatus for preparing or preserving the gas, but that I had a medicine (sulphuric ether) which would produce equally exhilarating effects: that I had inhaled it myself, and considered it as safe

as the nitrous oxide gas. One of the company stated that he had inhaled ether while at school, and was then willing to inhale it. The company were all anxious to witness its effects. The ether was introduced. I gave it first to the gentleman who had previously inhaled it, then inhaled it myself, and afterwards gave it to all persons present. They were so much pleased with the exhilarating effects of ether, that they afterwards inhaled it frequently and induced others to do so, and its inhalation now became fashionable in this country, and, in fact, extended from this place through several counties in this part of Georgia.

We may note that R. H. Goodman, one of the persons who participated in an ether frolic in Jefferson, made an affidavit in 1853, stating this fact and also that he removed to Athens, January 20, 1842, and introduced ether frolics in that community. It is interesting to observe that Long had inhaled ether before the first ether frolic, and that, repudiating the teaching he had received as a student, he regarded it as being as safe as nitrous oxide. To continue Dr. Long's narrative:

On numerous occasions I have inhaled ether for its exhilarating properties, and would

frequently, at some short time subsequent to its inhalation, discover bruises or painful spots on my person, which I had received while under the influence of ether. I noticed my friends, while etherized, received falls and bangs, which I believed were sufficient to produce pain on a person not in a state of anesthesia, and on questioning them, they uniformly assured me that they did not feel the least pain from these accidents. These facts are mentioned that the reasons may be apparent why I was induced to make an experiment in etherization.

The first patient to whom I administered ether in a surgical operation was Mr. James M. Venable, who then resided within two miles of Jefferson, and at present (1849) lives in Cobb County, Georgia. Mr. Venable consulted me on several occasions in regard to the propriety of removing two small tumors situated on the back of his neck, but would postpone, from time to time, having the operations performed, from dread of pain. At length, I mentioned to him the fact of my receiving bruises while under the influence of the vapour of ether, without suffering, and as I knew him to be fond of and accustomed to inhale ether, I suggested to him the probability that the operations might be performed without pain, and proposed operating on him while under its influence. He consented to have one tumor removed, and the operation

was performed the same evening. The ether was given to Mr. Venable on a towel, and when fully under its influence, I extirpated the tumor. It was encysted and about one-half inch in diameter. The patient continued to inhale ether during the time of operation, and when informed it was over, seemed incredulous, until the tumor was shown him. He gave no evidence of suffering during the operation, and assured me after it was over that he did not experience the slightest degree of pain from its performance. This operation was performed on March 30, 1842.

It is only the old, old story of genius groping in the dark. Tyndall says: "The greatest discoveries of Science have been made when man has left the region of the seen and known and followed the imagination by new paths to regions before unknown."

Long found the practice of ether inhalation an amusement, but owing to his keenness of observation and reflective turn of mind he left it the anodyne to hush "Life's saddest voice, the birthright wail of pain." Shortly before his death a member of his family inquired, "Were you not afraid to make a man unconscious?" He replied:



STAIRWAY ENTERING THE BUILDING IN WHICH THE TWO OPERATIONS ON VENABLE WERE PERFORMED. TO THE LEFT ON THE GROUND FLOOR WAS DR. LONG'S OFFICE, IN THE REAR HIS DRUG SHOP.

No! I had seen my friends receive falls and blows and one man so badly lamed as to be unable to walk, yet all were unconscious of pain when the hurts were received so that I knew it was from the effects of the ether inhaled. When giving it to Venable, with one hand I held the towel over his mouth and nose permitting him to breathe a little air as he inhaled the drug; I kept my other hand upon his pulse. When he became insensible to the prick of a pin I operated. As an inducement to Venable to allow himself to be the subject of such experiment, my charge for the operation was merely nominal, \$2.00, ether, 25 cents.

Many years later (1912) an eloquent speaker, J. Chalmers DaCosta, said:

When Long finished that operation he must have felt a sense of combined wonder, exultation and responsibility. It was a brave thing to operate under the full influence of a drug when all professional teaching was that it required large amounts of the vapour to produce unconsciousness, and that large amounts were dangerous. Had the patient died, the doctor would have had a lifelong self-reproach and would possibly have been sued or prosecuted for manslaughter. It was brave of Venable to take the chance. Wonder would naturally arise in Long's mind as he thought of the agonies inflicted by the surgery he had seen in Philadel-

phia and New York, as compared with the perfect tranquillity of the patient just operated upon. Exultation would be inseparable from the accomplishment of what the masters of surgery regarded as impossible. A sense of grave responsibility would rest in a man who believed he had done a mighty thing, but felt the necessity of proving it thoroughly in order that he might not mislead others and do harm.

There were only four witnesses whose affidavits were secured to his operations upon Venable which were performed in the doctor's office: James E. Hayes, witnessed the second, Edmund S. Rawls and A. T. Thurmond, classmates of Venable, and W. H. Thurmond, principal of the academy, witnessed the first. Some years ago, in some inexplicable manner, a story became current that the operation occurred under the shade of a large mulberry tree standing in front of the office, in the presence of many witnesses. A little reflection would show the absurdity of a reputable physician trying an experiment in surgery in the open air on a windy March day under the shade of a tree. At that season of the year a mulberry is not in foliage. In truth, the tree was not planted until after Dr. Long's marriage.

He was considered reckless, perhaps mad. It was rumored throughout the country that he had a strange medicine by which he could put people to sleep and carve them to pieces without their knowledge. His friends pleaded with him to abandon its use as in case of a fatality he would be mobbed or, in present-day parlance, lynched. The author knows of but one person who encouraged him by absolute faith, a girl of sixteen to whom he was engaged and who eventually became his wife.

Although quiet and reserved the young doctor had a deep vein of sentiment, as was proved by his first and only love affair. After his graduation at Philadelphia during a brief visit to Jefferson he chanced to observe a graceful child of fourteen on the street and so impressed was he by her appearance he contrived to obtain a closer view of her. Her brilliant complexion, sparkling eyes, golden hair and vivacious manner captured his fancy completely and although ten years her senior he resolved then and there that he would marry her as soon as she should reach the marriageable age, which in that day was sweet sixteen.

Caroline Swain, as the child was named, was the daughter of a planter, George Swain, a brother of the governor of North Carolina and later president of the state university. Her paternal grandmother was Caroline Lane, many of whose male descendants have been senators, governors and judges, while many of the females have evinced poetic ability. This talented Caroline Swain sometimes cultivated but her forte was letter writing. She was an enthusiastic lover of Nature.

Many years before the "Land of the Sky" became a summer resort she was in the habit of spending the month of August in what was at that time the secluded little village of Franklin, 120 miles distant from a railroad, but boasting of college graduates and people of culture and refinement. Her account of a summer outing in this village displays a charming native sensibility.

From the time of her marriage she intermittently kept a diary. Of the early years of her married life she thus expresses herself:

Yes, we had an earthly paradise—that of perfect love and harmony. Never did a palatial home contain a happier couple than ours beneath the locust trees whose fragrant flowers hung

pendant above the shady green lawn, the latticed porch a bower of beauty, covered with pink multiflora roses, flowers on the window sills, humming birds darting out and in the open windows, where I so often sat with a book or some light sewing, watching for a "solitary horseman." For his dear presence, loving words, fun and frolic, I lived. The laborious life of a village doctor with an extensive practice in the adjoining country and villages and towns, without railroads, is hard to conceive now. To reach his patients, swollen streams had to be crossed at the fords amid dangers, winter's cold and summer's heat disregarded, with loss of sleep and exhaustion the consequence.

But returning to my pleasant window, I yet see him dressed in a light blue summer suit, collar and cuffs black, tan-colored gloves, wide-brimmed white hat, sitting superbly on his dapple grey charger, firm, dignified—he rides like one to command.

During these earlier years of his practice the doctor was growing mentally in his chosen profession. His practice, already large, was extending; his fame as a surgeon acknowledged by the most eminent practitioners of that day; they often sending for him long distances to assist in difficult operations. His hands were remarkably supple and shapely in appearance, their extreme sensibility to touch being of great advantage in

certain kinds of practice. His ideals were noble and lofty, causing aspirations to make the most of himself for the good of mankind. For this he loved, labored and suffered.

Later she writes:

Just at this time the striving village doctor was on the eve of a great discovery, successful anaesthesia in surgery. It occupied his mind so much that he took time to write for publication in 1849 his experiments in the use of sulphuric ether in surgery. He used this method whenever he could induce his patients to submit to the "dangerous drug."

Unfortunately my father had not only to contend against the fears of the people, who had become very much excited over the powers of ether, but also the fact that there were but few subjects to experiment upon. Accidents requiring the use of the surgeon's knife were rare in that neighborhood in those days. There was no machinery to mangle people except the cotton gin, and no other source of accident except runaway horses.

Mesmerism at that time was attracting the attention not only of the unlearned and credulous but of the scientific men of the day. Lecturers on mesmerism were exhibit-

ing their powers in the South and people were investigating it in the small towns, and even in the country. It was difficult to persuade the people who knew of my father's operations that the inhalation of a drug could produce insensibility to pain: that this unconsciousness must be from the mesmeric powers of the young surgeon, they could believe.

Dudley Buxton of London said:

Many leading men in medicine and surgery accepted mesmerism as the long hoped for panacea whereby suffering humanity would pass unflinchingly through the ordeals of the surgeon's knife. In France, Richard had tried and pronounced its value and other surgeons scarcely less eminent were willing to swallow the doubtful reputation of Anton Mesmer, so long as they could benefit their patients by employing methods which had been exploited by his fertile brain.

In 1841, Braid of Manchester, England, made his trial of the "neurohypnotic trance." Elliotson of London was also giving the full weight of his great mental powers to mesmerism and in 1843 published his book on "Numerous Cases of Surgical Operations without Pain in the Mesmeric

State." Elliotson's skill as a physician and surgeon was generally recognized. Thackeray paid tribute to him in the dedication to "Pendennis."

Another noted surgeon, Topham of London, in 1843 amputated a thigh under the mesmeric influence, and in Paris Jules Cloquet had excised a cancerous breast. In the United States many of the most eminent medical men were using it in surgery, among them Dr. J. K. Mitchell of the Jefferson Medical College of Philadelphia.

The distinguished surgeon, Dr. Gibbes of South Carolina, performed several major operations on mesmerized patients. Nearer home Dr. Long's friend, Dr. L. A. Dugas of Augusta, Georgia, a much older and more experienced physician than he, in 1845 extirpated the breast of a woman in the mesmeric sleep, and in November of the same year, this operation was performed by him upon another woman placed under the same influence, with no evidence of either being sensible to pain.

The editors of the *New Orleans Medical and Surgical Journal* were advocates of mesmerism and as late as 1846 wrote:

That the leading surgeons of Boston could be captivated by such an invention as this under such auspices and upon such evidences of utility and safety as are presented by Dr. Bigelow excites our amazement. Why mesmerism, which is repudiated by the savants of Boston, has done a thousand times greater wonders and without any of the dangers here threatened. What shall we see next?

We must conclude that mesmerism was widely accepted and frequently used during surgical operations; and further, that any fresh departure in the direction of promoting painless surgery was open to the most embittered criticism.

My father read both British and American medical journals and was familiar with all the new discoveries. In his paper concerning his discovery, read in 1853 at a meeting of the Medical Society of Georgia, he says:

At the time I was experimenting with ether there were physicians high in authority and of justly distinguished character, who were the advocates of mesmerism, and recommended the induction of the mesmeric state as adequate to prevent pain in surgical operations. Notwithstanding thus sanctioned, I was an unbeliever

in the science and of the opinion that if the mesmeric state could be produced at all it was only on those of "strong imagination and weak minds" and was to be ascribed solely to the workings of the patients' imaginations. Entertaining this opinion, I was the more particular in my experiments in etherization.

This statement was confirmed by Dr. John F. Groves, my father's first medical student, in reply to a letter written sixteen years after my father's death:

Cohutta, Ga., Dec. 13, 1894.

Mrs. Frances Long Taylor:

Dear Madam:

In 1844, soon after I attained my majority, I decided to adopt medicine as my profession and began to think where and under whom I should begin the preparatory study. My father asked me to choose from among the number of physicians I knew the one I preferred to act as preceptor to me. Knowing Dr. Long so well and believing him to be a man of no ordinary ability, I at once fixed upon him as my choice. I entered Dr. Long's office in May, 1844, as the first student ever under his care. As I progressed with my studies he saw fit to make known to me his discovery by the use of which he could perform surgical operations without

giving any pain to his patient. [Here follows a description of the first cases, but as he was not a witness to these, I do not quote him.]

Not satisfied, however, that there was not more to learn about this great discovery, he proposed that we test it further, personally, which we did in his office, where with closed doors we administered it to each other to prove its perfect anaesthetic effect, also to discover any bad effect to the subject etherized. Owing to the prejudice and ignorance of the populace, Dr. Long was prevented from using ether in as many cases as he might have. Thus in the two years preceding my entering Dr. Long's office he had only about six cases in which to try the anesthetic effects of ether.

The first case that came under his care where its use was applicable after my going into his office was not until January 8, 1845, which was the case of a negro boy having two fingers to amputate, caused by neglected burn. I, as the only student still with the doctor, he had me to accompany him to see the operation and assist in the administration of the ether. The first finger was removed without pain, the second without ether, the child suffered extremely. This was done to prove that insensibility to pain was due to the agent used.

Soon after this in January, Dr. J. D. Long [a cousin] came into the office as a fellow

student; later toward spring came P. A. Wilhite and in August came Dr. Long's brother, H. R. J. Long. We four remained there at Dr. Long's office as students until the opening of the fall term of the medical colleges.

(Signed) J. F. Groves, M.D.

Sworn and subscribed to and before me, Dec. 15, 1894.

Wm. H. Wilson, N.P.

In a letter written to Dr. Hugh H. Young of Baltimore, January 15, 1897, describing the operation performed upon the negro boy, Dr. Groves says the patient was placed in a recumbent position, on a bed, with the hand to be operated on to the front for convenience to the surgeon.

Dr. Long poured ether on a towel and held it to the patient's nose and mouth too, to get the benefit of inhalation from both sources. Dr. Long determined when the patient was sufficiently etherized to begin the operation by pinching or pricking him with a pin. Believing that no harm would come of its use for a reasonable length of time he profoundly anesthetized the patient, then gave me the towel and I kept up the influence by holding it still to the patient's nose. The patient was entirely unconscious—no struggling—patient passive in the

hands of the operator. After a lapse of fifty years you would hardly suppose that a man could remember every minute detail but I have clearly in mind all the facts I have given you.

Your obedient servant,
J. F. Groves, M.D.

Dr. Young arrives at this conclusion:

Long then administered ether as it is done today (Nov., 1896). He did not pause at the threshold of discovery or topple the other way, but kept ahead and by careful observation, experimentation and reflection discovered that ether was a safe, sure and complete anesthetic.

The following affidavit is from John G. Lindsey:

Georgia, Jackson County

Personally appeared before me, John G. Lindsey who being duly sworn deposeth and saith that he was a classmate of James M. Venable in the Academy at Jefferson in Jackson county, Georgia in the year 1842, then in charge of William H. Thurmond, Esq., and at some time during that year there was a surgical operation performed on James M. Venable by Dr. C. W. Long while as he (the said J. M. Venable) has repeatedly told me he was under the influ-

ence of sulphuric ether administered to him by the said Dr. Long. I recollect to have heard him (Venable) say often in conversation with others that the operation was performed without pain whatever. The operation was cutting a tumour or wen from the back of the said Venable's neck. As to the year above given I know I cannot be mistaken as it was the only year Mr. Thurmond ever had charge of the Academy at Jefferson. Sworn to and subscribed before me the 12th day of December, 1853. James H. Hayes, J. P.

John G. Lindsey.

Soon after my father's death I learned that one of the witnesses to the first operation on Venable was living and I desired to know if anything more on that subject could be obtained from him than was given in his affidavit dated August 4, 1849, and requested him to answer certain questions.

Marion, Perry Co., Ala.,
June 3, 1880.

Miss Fannie Long.

Your letter dated May 1, 1880 has just come to hand. I assure you that I have never received a letter from your father or anyone else relative to the subject you mention except about

1850. I received a letter and some interrogatories which I filled to the best of my memory. In my native village, Jefferson, Jackson County, Georgia, it was a very common thing (in the year 1842 I was about sixteen years old) for a parcel of us town youngsters to meet together and take or inhale ether for sport. We bought what the druggist labeled sulphuric ether. Sometimes your father, Dr. C. W. Long, would be with us. Occasionally some of us would get very much bruised but experienced no pain until after we recovered from the influence of the ether. Dr. Long frequently made expressions relative to the effects of ether on the system, he said that surgical operations could be performed without pain if enough ether would be used.

The doctor at that time was medicating a tumor on the neck of James M. Venable. He told Mr. Venable that he could cut out the tumor and that he (Venable) would suffer no pain. A few days after said conversation I accompanied Mr. Venable to Dr. Long's office. Dr. Long gave Venable some ether on a folded towel and Dr. Long cut out the tumor. Mr. Venable said that he experienced no pain in the least. Mr. Venable and I were intimate friends and school mates at the time the above took place. You ask me what suggested the idea to his mind? He saw us get hurt while under the

influence of ether. In other words he saw the apple fall, like Sir Isaac Newton he gave it his attention. You ask was his determination sudden. So far as I know it was, for soon after we began to use ether for sport he proposed to operate on Mr. Venable.

Your third question is: "Did he recieve encouragement from any one?" Not that I know of.

Your fourth question, "Was it the deliberate conviction of his own mind?" In expression of ideas he made no quotations.

"Had we ever heard of any one being made insensible by the inhalation of ether before this time?" I had used it and saw a great many others use it as I have stated, but never saw it used for any other purpose than sport and amusement until I saw Mr. Venable take or inhale it. At that time Mr. Venable and I were going to a literary school. I did not go into any office to read medicine until the year 1853.

I will take pleasure in answering any questions or give any information in my power. I expect I am the only living witness to the operation performed on Mr. Venable by your father.

Most Respectfully,

E. S. Rawls.

You are at liberty to use this in any way you may see proper.

In October, 1905, a venerable man bowed with the weight of more than four score years, called upon the writer and, giving his name as Robert Goodman of Atlanta, stated that he had in his possession a letter written by my father, ordering the ether used in his operation on Venable in 1842. This important missive had followed Mr. Goodman's fortunes across the continent twice, hidden away in an old trunk, for nearly sixty years. Reduced to poverty by the war of the sixties, Goodman moved to Oregon with the hope of rebuilding his fortunes. Disappointed in this he returned to Atlanta, Georgia, where he had been for many years a successful and respected citizen.

A member of his family investigating the contents of the trunk found the letter which he felt impelled to give to me personally. This letter, folded to form its own envelope as was the custom of those days and sealed with wax, was unstamped but marked "postage 25 cents."

Jefferson, Feb. 1, 1842.

Dear Bob:

I am under the necessity of troubling you a little. I am entirely out of ether and wish some

by tomorrow night if it is possible to receive it by that time. We have some girls in Jefferson who are anxious to see it taken, and you know nothing would afford me more pleasure than to take it in their presence and to get a few sweet kisses(?). You will please hand the order below to Dr. Reese, and if you can meet with an opportunity to send the medicines to me tomorrow you will confer a great favor by doing so. If you cannot send them tomorrow, get Dr. Reese to send them by the stage on Wednesday. I can perhaps persuade the girls to remain until Wednesday night but would prefer receiving the ether sooner.

Your friend.

C. W. Long.

On the outside is stated:

This letter written to me by Dr. C. W. Long in] which he ordered the ether with which he performed the first surgical operation on a patient under the influence of that drug. A wen removed from the neck of a young man, Mr. James Venable, without giving him any pain, it was a complete success.

In November, 1841, Dr. C. W. Long told me he believed an operation could be performed without the patient feeling pain by giving him ether to inhale. In April, 1842 he told me his experiment on James Venable was successful. I

also saw James Venable the same spring who told me that he felt no pain during the operation.

R. H. Goodman.

That my father was fond of a joke is evident from his reference to his "kissing the girls." At an entertainment during Christmas he was prevailed upon to inhale ether to demonstrate its exhilarating effects. A spirit of mischief suddenly possessed him and he told those present that they must not be surprised at anything he might do. They assured him that no offence would be taken as he was kind enough to yield to their solicitations. He became slightly under the influence and proceeded with the utmost gravity to kiss every girl present. So great was his dignity and modesty which he retained through life that his prank was not suspected. In later years he was wont to relate with gusto: "The girls could not have been very averse as he was so often importuned afterwards to reveal to them the effects of the mysterious drug." But this boyish prank was never repeated. He initiated them into the mystery and left them to their amusement. To him it was a serious matter, a problem to be solved.

An affidavit from Goodman in 1849 follows:

I certify that on the first of January, 1842, I resided in Jefferson, Jackson County, Ga., and that about that time myself, with several other young men were in the habit of meeting at Dr. C. W. Long's shop, and other rooms in the village and inhaling ether which he administered to us. We took it for its exhilarating effects. On the 20th of January of the same year I removed to Athens in the above named state where I introduced the inhalation of ether.

I and several of my young associates frequently assembled ourselves together and took it for the excitement it produced. After that I know it became very common to inhale ether in Athens, and that it was taken by a great many persons in the place and was frequently taken on the College Campus and on the streets.

R. H. Goodman.
of the firm of
Mathews, Goodman & Co.

August 4, 1849

The affidavits of Drs. Carlton and Camak of Athens show that Dr. Richard D. Moore, who was their medical preceptor in 1843,

knew of my father's discovery. Dr. Ange De La Perrière (an exiled French nobleman and a cousin of Count De Trobriand, later General De Trobriand of the United States Army during the Civil War and in the reconstruction period commander at New Orleans) who lived near Jefferson refused to investigate the matter. Later, however, he became one of my father's warmest friends and advocates. He stated in his affidavit: "I do further certify that the fact of Dr. C. W. Long using ether to prevent pain in surgical operations was frequently spoken of and notorious in the county of Jackson, Georgia, in the year 1842."

To my father's disappointment, the older medical men of the vicinity and neighboring towns were sceptical of his claims, all the while expecting a fatal result from some one of his experiments. A young physician, Dr. Joseph B. Carlton of Athens, whose wife's family lived near Jefferson and whom the young couple were visiting in the winter of 1844, was influenced by my father to use ether in extracting a tooth. Mrs. Carlton many years later gave the following testimony:

I do certify that Dr. Crawford W. Long of Jefferson, Jackson County, Georgia, advised my husband, Dr. Joseph B. Carlton, a resident of Athens, Georgia, to try sulphuric ether as an anaesthetic in his practice.

In November or December, 1844, in Jefferson, Georgia, while on a visit to that place and in the office of Dr. Long my husband extracted a tooth from a boy under the influence by inhalation of sulphuric ether, without pain, the boy not knowing when it was done.

I further certify that the fact of Dr. Long's using sulphuric ether by inhalation to prevent pain was frequently spoken of in the county of Jackson at this time and was quite notorious.

Mrs. Emma W. Carlton.

Sworn to and subscribed before

Frank Betts,

F. T. Allgood, N.P. Clarke County, Ga., June 29,
1907.

That the Venable operation and others performed by my father were well known in Athens is mentioned by Bill Arp (Colonel William Smith) who said: "When I was a student in college at Athens, Georgia, in 1845, the wonderful discovery of Dr. Long and his use of anaesthesia was the talk of the town and our professor of chemistry, Dr. Le Conte made it the subject of a lecture."

Later Dr. John Le Conte and his brother, Dr. Joseph, left Athens and accepted professorships at the University of California. They were both noted in this country and abroad for their scientific attainments and were ardent supporters of my father's claim.

In spite of discouragements my father's confidence in the knowledge that he had found the antidote for pain never faltered and whenever its use was applicable he tried its efficacy. I have in my possession testimony of eight cases successfully anesthetized before September, 1846.

V

PUBLICATION OF THE RESULTS OF THE
USE OF ETHER

THE question has frequently been asked by those who have not investigated the conditions of the times why he did not publish this discovery to the world. Dr. Dudley Buxton of London remarks:

The simplest justice however must explain Long's reticence in a sense which redounds wholly to his credit. Long believed in his method but recognized it needed careful working out; he patiently experimented when patients seemed suitable; when they were not available he tried it on himself and on his pupils. He knew the people were in favor of mesmerism, a system which he regarded with disfavor, and he had no surgeon in his neighborhood to whom he could apply for extended experience. The doctors who were cognizant of his efforts were adverse to them, and so he preferred to wait and to gain experience before attempting to exploit a discovery which might have less in it than appeared

at first. He was alive to the fact that some might believe they found in his practice a development of hypnotism.

The following refers to the influence of Dr. Long's old preceptor, George B. Wood:

The profound scholar, keen observer and original thinker, for many years practically determined the views of the whole profession on ethics and practice. His condemnation of the premature reporting of cases and drug actions may well have decided his old student (he had an immense influence in moulding the minds of his students) to delay publishing a report of the actions of ether. Wood spoke of immature views and premature judgments as *ignes fatui*. He insisted that observers must never be content with a single experiment. Dr. Long made no concealment of his discovery, applied for no patent and gave openly and freely to the profession the knowledge of the greatest boon to suffering mankind. [J. Chalmers DaCosta.]

Has Dr. Jenner been criticized or condemned for using vaccine for twenty years before publishing the fact? Later when Dr. Ehrlich, in a new preparation of arsenic, treated seven thousand cases successfully and was asked when he would give his formula to the world, he replied: "Not

until I have received reports of twenty or thirty thousand injections."

In a matter so important as anesthesia, with the danger attendant upon its use, a reasonable time should have been allowed for experiments before publishing results. At such a time as a physician is assured by exhaustive demonstration of the safety with which less experienced operators may employ it, and not until that time, should he give it to the profession as a whole.

Dr. Morton did not publish the fact that he had used ether in extracting a tooth. In one of his earlier statements he says that Dr. Bigelow, learning of the incident, was much interested and called upon him several times and requested that he should be allowed to demonstrate it in a surgical operation. On October 16, 1846, Doctors Warren Hayward and Bigelow operated upon a young man at the Massachusetts General Hospital. Morton administered the letheon.

In the words of Dr. Oliver Wendell Holmes: "It was formally introduced to the scientific world in a paper read before the American Academy of Science and Arts, by Dr. Henry Bigelow, one of the first if not the first of American surgeons."

If to promulgate an idea is a greater achievement than to originate an idea, then the title of discoverer of anesthesia should be given to Bigelow, as the operation was performed at his solicitation and published by him.

The four pupils of the youthful country doctor left Jefferson in the autumn of 1845 for various medical schools. His brother, H. R. J. Long, who was then twenty-two years of age, attended lectures in New York City. From his elder brother, he received this letter of advice. Many years later the daughter of the recipient gave it to me.

Jefferson, Ga., December 23, 1845.

Dear Brother:

I suspect you have decided before this time about taking the dissecting ticket. If you have not, I think it will be best for you to defer it, until attending the next course of lectures.

The dissecting rooms in most medical colleges are kept open from the first of October, and during that month is the best time for dissecting. Then the students can dissect by daylight and when the regular lectures commence they will be through with dissections and have nothing to interrupt their studies. If you have not taken any private lecture tickets, I would advise you not to take any this winter. You are

not sufficiently advanced to be profited by them and I have some doubt whether they are of much advantage, even to second course students. The six lectures of the faculty are sufficient for any one to recollect and well digest in the mind in one day. The examinations by the demonstrator in anatomy and by others are no doubt of advantage to those who expect to apply for graduation.

I have never experienced such a winter before in Georgia. The weather has been very cold since the first of November. On Saturday 20th of this month, we had another "cold Saturday." Early Monday morning the thermometer was 8 degrees, and has not been higher than 20 degrees since. The mill pond has been in fine order for skating since Sunday morning and nearly all Jefferson has been on it. Wm. Thurmond tried the strength of the ice Sunday morning and received a cold bath to his sorrow, but the ice soon became too thick to treat the others in so discourteous a manner.

You have no doubt heard the story of "Handy Andy" and recollect his asking Dick Dawson whether he was an "uncle" or "aunt." I must inform you in the language of "Andy" that you are an "aunt" and that your niece, a week old tomorrow, is doing very well. You must excuse my nonsense.

(Signed) C. W. Long.

The life of a country doctor eighty years ago was one of continued hardship. In winter long cold rides through the country with mud to the hubs of the buggy wheels or when the roads became impassable for vehicles almost to the stirrups of the saddle, in summer exposure to the blazing radiance of the sun began to tell upon my father's health. From all indications he realized that he was doomed to become a victim of tuberculosis.

When either a medical student in Philadelphia, or in a hospital in New York (the location I have forgotten but not the circumstances), he dissected the lungs of a physician who had always maintained that many cases of what was then considered a fatal disease, tuberculosis, or consumption as it was commonly called, were curable, that he himself was an example of the truth of that belief, and at his death his lungs were to be examined. This was done and upon them my father, one of many, saw the scars of the tubercles that had healed years before. Recalling this he was undismayed and by employing practically the same treatment which is in vogue today, he was restored to health.

We now come to another eventful year in the young physician's life. I quote from a paper read by him at the meeting of the faculty of the Georgia Medical College in 1848.

The first notice I saw of the use of ether, or rather of Dr. Morton's "letheon" as an anaesthetic, was in the editorial of the *Medical Examiner* for December, 1846, in which the Editor gives the following extract from a paper by Dr. H. J. Bigelow contained in the *Boston Journal*. "The preparation is inhaled from a small two-necked glass globe, and smells of ether and is, we have little doubt, an ethereal solution of some narcotic substance."

Having on several occasions used ether, since March, 1842, to prevent pain in surgical operations, immediately after reading this notice of "Letheon" I commenced a communication to the *Medical Examiner* for publication in that Journal, to notify the medical profession that sulphuric ether, when inhaled, would of itself render surgical operations painless, and that it had been used by me for that purpose for more than four years. I was interrupted when I had written but a few lines, and was prevented by a very laborious country practice from resuming my communication until the *Medical Examiner* for January, 1847, was received, which reached

me in a few days after reading the December number. It contained several articles giving accounts of different experiments in etherization, in which surgical operations were performed without pain. On reading this article I determined to wait for a few months before publishing an account of my discovery in order to learn whether any surgeon would present a claim to having used ether in surgical operations prior to the time it was used by me, but as no account has been published, so far as I have been able to ascertain, of the inhalation of ether being used to prevent pain, in surgical operations as early as March, 1842, my friends think I would be doing myself injustice not to notify my brethren of the medical profession of my priority in the use of ether by inhalation in surgical operations.

The late Dr. R. J. Massey, who at that period was a student at the Georgia Medical College (now known as the Medical Department of the University of Georgia), gives some interesting facts concerning Long's visit there:

About this time, 1848, Dr. Paul F. Eve invited Dr. Long to Augusta, the object being to confer with him in order to prosecute his claims before the world as to his priority in the

use of anaesthesia. Dr. Long was introduced to the class as the originator of practical anaesthesia.

The substance of Dr. Eve's remarks as I then took them down and afterwards incorporated them in my graduating thesis the next year are as follows: In order to fully understand the situation it is proper to say that Dr. Paul F. Eve was then the Nestor of southern surgery, and was recognized as an authority not only in America, but in Paris, then the center of medicine and surgery of the world. After having attended the best schools in America he had spent five years in Paris, graduating with distinction.

The first successful abdominal hysterectomy in America was performed by Dr. Eve in April, 1850. This was done for malignant disease. In April, 1854, Dr. Eve introduced in America the bilateral operation of lithotomy. His first paper appeared in the *American Journal of Medical Sciences* of the above date reporting four cases. He did more than any other American surgeon to give this operation a recognized status in this country.

For a number of years (1845-1849) Dr. Eve was editor of the *Southern Medical and Surgical Journal*, conducting it on a high

plane and with marked ability. In November, 1850, he was called to the chair of surgery in the University of Louisville, and was afterwards professor of surgery in the University of Nashville.

Dr. Eve, tall, brusque, emphatic, one of the most forcible lecturers ever before the public in any capacity, said:

Young gentleman, this is the event of a lifetime. I introduce no distinguished individual. Our guest today comes unheralded. No great honors are heaped upon his head. He is a plain practical doctor. He comes, however, well equipped for the duties of his profession. He is learned, painstaking and very observant. His researches so far have already convinced the profession that a bright and useful life is before him. While quiet and diffident, he possesses all the requisites of success. He has already mastered a scientific solution that when properly learned will entirely revolutionize the field of surgery. I introduce to you Dr. Crawford W. Long of Jefferson whom posterity will honor as the very first man to apply practical anesthesia successfully to surgical operations. A Wells, a Morton or a Jackson, or a Sir James Y. Simpson, the world renowned Scotch obstetrician, may for the present wrest the honors from Dr. Long.

I will not live to see the time, but young gentlemen under the sound of my voice will see Dr. Long crowned as the greatest benefactor to suffering humanity. To him will be erected a monument of love and honor in grateful hearts, all over the world, more enduring than brass and lasting than marble, while with heartfelt emotion I greet our guest and congratulate you upon the honor of this acquaintance to a brother doctor to whom the future is bright indeed. I suspend the lecture of ten minutes for the class to shake the hand of such a public benefactor as Dr. Long has proven himself to be.

In 1849, Dr. Long published in the *Southern Medical and Surgical Journal* an account of his discovery with affidavits of witnesses.

For nearly three years had been waging the celebrated ether controversy between Wells, Jackson and Morton, which led to so much jealousy, heart burnings and eventually tragedy and suicide. From all this my father held aloof, pursuing the even tenor of his way, ministering to the sick and in his spare hours reading specially on medical subjects. His skill in surgery was becoming known and he was frequently called in consultation by neighboring practitioners,

in particular by Dr. Richard Banks, one of the most noted physicians in the state, living at Gainesville forty miles distant. Dr. Banks was modest to a fault and left no record of his best work. It is known, however, that he was the first American surgeon to extirpate the parotid gland, in 1831. The parotid region was then a *terra incognita* in surgery and the possibility of removing the gland was a mooted question. Dr. Banks' fame as a surgeon seems to have proceeded largely from his operations for cataract and for stone in the bladder. In lithotomy he was the contemporary and compeer of the celebrated Dudley of Kentucky. Up to 1852 it is said that Dr. Banks had performed lithotomy sixty-four times with but two unsuccessful results. He was assisted by my father in a number of his operations. I have heard my mother speak of her pride in the fact that his skill was appreciated by so noted a physician as Dr. Banks.

My father began the administration of ether in his obstetrical work a few years after his discovery. According to the testimony of my mother he administered it to her at the birth of one of her children about

1847, which was probably his first use of ether in obstetrics.

From that time until his death in 1878 he used it at his discretion in all such cases.

As is well known his very last case was an obstetrical one. He literally died in harness, falling unconscious upon the patient's bed, shortly after her delivery; just previous to this he had suggested that ether be administered to her. There being no complications it was not done. The patient's husband, who was himself a physician, vouched for this.

The facts mentioned above prove beyond question the falsity of the statement made by some that not realizing the importance of his discovery he abandoned it.

There was a deep-rooted superstition not confined to the ignorant alone, that "child-bearing was the primeval curse. The prospective mother was about to give to the world a new creature cursed with original sin, and to afford her surcease from pain was to thwart the designs of Providence." Three hundred years previous to Dr. Long's employment of ether in obstetrics a Hamburg physician had been arrested for his attempt to mitigate the pains of labor, con-

victed and sentenced by the crown to be burned.

“For thousands of years antagonism to new ideas choked independent thought, barred scientific progress, and made the past one long night of heartache and suffering.”

As late even as in 1874 my father's desire to relieve the anguish of a young woman in childbirth was thwarted by her mother, a highly cultured and religious woman who felt that such would violate the scriptural injunction: “In pain and sorrow ye shall bring forth children.”

To defy ignorance and superstition demanded an unusual degree of courage and indomitable will-power. These two qualities my father possessed, as everyone said who knew him, and many of these still living can bear witness.

If he had a specialty in his profession it must have been that of obstetrics. He was considered very skilful in maternity cases and was frequently called in consultation by physicians in and around Athens, to operate where the use of instruments or surgery was required. When he had entire charge in preparing the prospective mother

for her time of trial he lost but two cases in his long practice of nearly forty years, a fine record when we remember this was before the day of antiseptic surgery.

He did not depend alone upon his medical skill. Many times when doubtful of the recovery of one of his patients he sought help from a higher source in earnest prayer. Said one who had been with him many times under such stress : "No one could be with Dr. Long under the pressure of anxiety in the sick chamber and not see prayer in the meditative stillness of his eyes. No man could do such work as he did except God be with him."

VI

THE FAMOUS ETHER CONTROVERSY

HUGH H. YOUNG states:

In 1849, Morton petitioned Congress for a reward for his discovery. He was at once opposed by Jackson and the friends of Wells who was dead. The celebrated ether controversy thus begun, occupied the attention of Congress for years, and was characterized by the greatest animosity between the former bosom friends and companions.

In April, 1853, my father read a paper before the State Medical Society at a meeting in Savannah, Georgia. The organization enthusiastically endorsed his claims, and advised that he should present them before the American Medical Association. The following letter which was written by Crawford Williamson Long to Dr. Paul F. Eve reveals his own feelings on this subject:

Athens, Ga. March 7th, 1854.

Dr. Paul F. Eve,
Nashville, Tenn.

Dear Doctor:

In accordance with the suggestion in your note, I have been corresponding with our members in Congress, and am informed there will soon be a bill introduced making an appropriation for the discovery, and leaving with the Secretary of Treasury to decide who is entitled to the compensation. Should the bill be passed, so as to make the appropriation to the discoverer be the first to apply it to surgical operations, I think I will be able to establish conclusively my claims to its first use.

In your note you remark that you think it will be too late to attend to the suggestion of the State Medical Society at the next meeting of the National Medical Association, and if presented it would be laid off for want of time. My object in addressing you at this time is to ask your opinion more fully on the propriety of presenting the subject before the National Association. I am free to say that I would much prefer my claim to the discovery being admitted by the National Medical Association¹ to *any appropriation* which might be made by Congress. I am entitled to the credit of priority of discovery, and I am extremely anxious that this honor should be yielded to me by enlightened members of the medical profession.

¹American Medical Association.

I believe now I have my proof in such condition as would satisfy the minds of the delegates to the National Medical Association.

Very truly yours,
C. W. Long.

Nashville, April 8th, 1854.

Dear Doctor:

I think it would be well if you can to get an expression from the American Medical Association. It meets in St. Louis and a steamer leaves here on the 27th of April, 4 P.M. to carry delegates there. I shall take pleasure to do all I can for you and beg you will come directly to my house on the 26th. of this month. I expect to be at the meeting—let me know and I will meet you at the Depot, the 26th . . .

I would advise you by all means to prosecute your claims to priority, and for one I say God speed you.

Your sincere friend,
Paul F. Eve.

Dr. Eve and my father were later informed "that no disputes could be examined into by that society." My father realized that the time had come when he must take part in the conflict, that in that way alone could he obtain recognition of his claims. He wrote to Judge Junius Hillyer, congressman from Georgia, stating his case

and giving proofs. He also wrote to Senator Dawson. It would seem that Dawson was a friend of Jackson, for he wrote to him of this new claimant and requested him to investigate his case. This Jackson did, calling upon him March 8, 1854. An extract of a letter from Judge Andrews to a prominent physician then living in New York gives the details of the conversation between two of the claimants.

In March, 1854, early in the day, a stranger entered the drug store (to which I have referred) and inquired for Dr. C. W. Long. I told him Dr. Long was not in and invited him to a seat by the fire. In a few moments Dr. Long came and as he approached the fire, the stranger presented his card, introducing himself as Dr. Charles T. Jackson of Boston, Mass. Dr. Jackson was a spare-made angular man of swarthy complexion; dark hair and eyes; apparently forty years of age. After a moment's conversation, Dr. Jackson said to Dr. Long: that he called to see him for the purpose of comparing notes as to the first discovery of the anaesthetic effects of Sulphuric Ether; they both and others claiming this discovery. Dr. Long pleasantly assented to conferring with him upon the subject, and I was called upon to witness their interview, and to examine with

them the documentary evidence that each would submit.

Dr. Jackson stated "that his profession was that of an analytical chemist in Boston, Mass.: That a few doors from his office in Boston was the office of Dr. W. T. G. Morton, a dentist: That on September 30th, 1846, Dr. Morton came to his office and said, 'Dr. Jackson, I have to perform an operation upon a patient who is suffering very much, and is in a very nervous condition, can you suggest or give me something that will allay the pain and quiet the excessive nervousness?' That he took a small vial of Sulphuric Ether, adding some essential oils to disguise its odor, and cautioned him in its use, and fully directed him how to have the patient inhale it. Finally Dr. Morton and he (Jackson) made a contract respecting the use of the anaesthetic, and applied for a patent under the name of 'Letheon' and later in 1849, Morton petitioned for a reward, and that he and Dr. Horace Wells, a dentist of the State of Connecticut applied to the U. S. Congress also for this great reward. While a controversy was in progress before Congress, between Jackson, Morton and Wells, it became known that Dr. Crawford Long, of Athens, Georgia, had used ether as an anaesthetic in 1842, and that now he was here to compare notes as to the first discovery of ether as an anaesthetic."

Dr. Crawford Long then said "that his attention was first called to the condition by the actions of certain persons who were under the influence of Nitrous Oxide (Laughing Gas). Experiments in his own office, the subjects inhaling Sulphuric Ether, made him believe that surgical operations could be performed upon persons under the influence of Sulphuric Ether by inhalation, and without pain to the patient. He waited for an opportunity to use Sulphuric Ether in a surgical operation. The opportunity came, and on the 30th. March, 1842, he administered Sulphuric Ether by inhalation to James M. Venable of Jackson Co., Georgia, and extirpated a tumor from his neck and without pain to the patient."

Other operations followed this one and all in the presence of students and other citizens. During this time he conferred with physicians in all that section of Georgia, giving in detail his successful experiments and operations with Sulphuric Ether as an anaesthetic.

Drs. Jackson and Long submitted to my inspection much documentary evidence in the way of memoranda, book entries, certificates and affidavits made under oath by patients and lookers-on.

In their protracted conference they were frank but slow, careful, cautious and exact. It was a weary day's work, and vividly before me now, though so many years intervene.

Dr. Jackson went from Athens into the gold mining section of Georgia. As he had to pass through Jefferson where Dr. Long first used ether as an anaesthetic, he gave Dr. Jackson the names of physicians and citizens who saw and knew of his first frequent use of ether as an anaesthetic and who would personally give him their evidence.

On Dr. Jackson's return to Athens, after some ten days, he called upon Dr. Long again and in my presence. Throughout their conference during the two days that Dr. Jackson was in Athens to whatever proposition he made to Dr. Long for sharing with him the honor and benefits of this discovery, Dr. Long replied, "My claim to the discovery and use of sulphuric ether as an anaesthetic rests upon the facts of my use of it on the 30th. March, 1842, of which I have indisputable evidence under oath and from reputable citizens."

On taking leave of Dr. Long, late in the afternoon of the second day of his visit to Athens, Georgia, in March 1854, Dr. Jackson said to Dr. Long, "Well, Doctor, you have the advantage of us other claimants to the first discovery and use of sulphuric ether as an anaesthetic, but we have the advantage in having first published it to the world."

It is a thing of record published by Dr. Charles T. Jackson of Boston, Mass. in the "*Boston Medical and Surgical Journal*, on April

11th. 1861, that he (Jackson) visited Dr. C. W. Long at Athens, Ga. on March 8th. 1854, and that he then and there examined the evidence as to the claims of Dr. Long, as to the first discovery and use of sulphuric ether as an anaesthetic in surgical operations. And from the evidence that was submitted, he learned that Dr. Long first used ether as an anaesthetic on 30th. March, 1842 in extirpating a tumor from the neck of James M. Venable of Jefferson, Jackson Co., Ga. without pain to the patient."

[Then comes a list of the first patients.] You will see that three of these operations were prior to the use in 1844, of Nitrous Oxide Gas as an anaesthetic by Dr. Horace Wells, a dentist of the State of Connecticut, and that all occurred prior to the suggestion on 30th. September, 1846, of the use of sulphuric ether to allay pain and the use of it on said September 30th. 1846, at Dr. C. T. Jackson's suggestion, by Dr. W. T. G. Morton, both of Boston, Mass.

When you know that writing at such length as this letter is, is wearying, you will pardon interlineations, and not ask that I shall tax my small modicum of strength as to attempt re-writing it.

I am as always,

Your friend,
C. H. Andrews.

Georgia Baldwin County,
Nov. 18th. 1900.

In another letter written by Judge Andrews he says: "After satisfying himself of the genuineness of the claims, Jackson proposed to Long to lay their claims conjointly before Congress—he, Jackson, to claim the discovery, and Long to claim the first practical use," his object evidently to get ahead of Morton. This proposition was rejected by Dr. Long who was satisfied that he was entitled to both. In a letter to Hon. D. L. Swain, ex-governor of North Carolina, which I have here, he says in regard to this transaction:

The only ground Dr. Jackson urged for his right to the discovery was that while suffering with pain and dyspnoea, in February, 1842, from breathing chlorine gas, he inhaled ether and found that while under its influence he was free from pain. He does not claim that he suggested its use to prevent pain in surgical operations until more than one year after my first operation was performed. I cannot give the exact date when I was first led to believe that ether would prevent pain in surgical operations, but I know it was as early as February, 1842.

In 1839 Pereira, in his "Elements of Materia Medica," states: "The vapor of ether is inhaled to relieve the effects caused

by accidental inhalation of chlorine gas. If the air be too strongly impregnated with ether, stupefaction ensues." So there was very little new in Dr. Jackson's "discovery," and a mere untried inference hardly deserves the title of discovery.

Dr. Jackson finally acknowledged the justice of Dr. Long's claims and wrote to Senator Dawson to that effect.

On April 15, 1854, the appropriation bill was up before the Senate for its final reading. The friends of Wells and Morton, relying on the volumes of manuscript they had presented, were confidently awaiting the result, when Senator Dawson arose and said that he had a letter from Dr. Jackson which acknowledged that a Dr. Long in Georgia had undoubtedly used ether before any of the claimants.

Coming as it did from so prominent a contestant, this announcement fell like a thunderbolt on the rival claimants, and from that time they seem to have lost all hope of gaining the reward and passively allowed the bill to die.

Desirous only of preventing another from being recognized by Congress as the discoverer, and not wishing any pecuniary

reward himself, Long never pushed the matter farther. His documents of proof were therefore never brought up before Congress by Judge Junius Hillyer, who represented Long's Congressional district and had charge of the proofs.

I have here an interesting memento of the conference between the two discoverers, in a card in which Jackson has written a note to Long. On one side it reads:

For Dr. C. W. Long,
of Athens, Ga.
C. T. Jackson,
New York Hotel.
(over)

and on the reverse:

Telegraph from J. L. Hayes, Washington.
"Assignee struck out by request of Mr. Everett."
Bill probably will come up in House July next.

Edward Everett was then senator from Massachusetts. In the transactions of the Senate, April 19, 1854, I find the following explanation of the bill by Senator Walker:

The bill as amended recites that a discovery of anaesthesia has been made—that it is believed the discovery was made by some one of the following persons, W. T. G. Morton, Chas. T. Jackson and Horace Wells, but it does not

appear to the satisfaction of Congress which of those parties was the original, true and first discoverer thereof. It proposes to appropriate \$100,000.00 as a recompense for the real discoverer. In order to determine this it shall be the duty of the district attorney of the United States for the Northern District of New York, to file in the circuit court of the United States for that district a bill of interpleader wherein reciting the act or its substance, the Secretary of the Treasury shall be complainant, and W. T. G. Morton, Chas. T. Jackson and the personal representatives of Horace Wells or any other person who may make application to the court for that purpose shall be defendants. The issue is to be which of the parties named was the original, true and first discoverer of anaesthesia, and the court is to decide which one that is and direct the sum of \$100,000 be paid over to him.

At the instance of Senator Dawson, Dr. Long's name was also inserted in the bill.

I have carefully searched the Congressional Records and find that this bill never came up before the House for final passage, and consequently never reached the district court of New York. It seems to have been abandoned.

Several years later Dr. Jackson wrote

an article¹ giving Long the credit for the first use of ether in surgery. I have Dr. Long's copy of that journal. The communication is so important that I will quote most of it:

Messrs. Editors: At the request of the Hon. Mr. Davison, U. S. Senator from Georgia, on March 8th, 1854, I called upon Dr. C. W. Long, of Athens, Georgia, while on my way to the Dahlonega gold mines, and examined Dr. Long's evidence, on which his claims to the first practical operations with ether in surgery were founded, and wrote, as requested, to Mr. Dawson, who was then in the U. S. Senate, all I learned on the subject. From the documents shown me by Dr. Long, it appears that he employed sulphuric ether as an anaesthetic agent:

1st, March 30th, 1842, when he extirpated a small glandular tumor from the neck of James M. Venable, a boy in Jefferson, Georgia, now dead.

2nd, July 3rd, 1842, in the amputation of the toe of a negro boy belonging to Mrs. Hempbill, of Jackson, Ga.

3rd, Sept. 9th, 1843, in extirpation of a tumor from the head of Mary Vincent, of Jackson, Ga.

4th, Jan. 8th, 1845, in the amputation of a finger of a negro boy belonging to Ralph Bailey, of Jackson, Ga.

¹ Jackson, C. T. First practical use of ether in surgical operations. *Boston M. & S. J.*, April 11, 1861.

Copies of the letters and depositions proving these operations with ether were all shown me by Dr. Long.

I then called on Profs. Joseph and John Le Conte, then of the University of Georgia, at Athens, and inquired if they knew Dr. Long, and what his character was for truth and veracity. They both assured me that they knew him well, and that no one who knew him in that town would doubt his word, and that he was an honorable man in all respects.

Subsequently, on revisiting Athens, Dr. Long showed me his folio journal, or account book, in which stand the following entries:

James Venable

March 30th, 1842, Ether and excising tumor,	\$2.00
May 13th, Sul. Ether,	.25
June 6th, Excising tumor,	2.00

On the upper half of the same page, several charges for ether sold to the teacher of the Jefferson Academy are recorded, which ether Dr. Long told me was used by the teacher in exhibiting its exhilarating effects, and he said the boys used it for the same purpose in the academy. I observed that all these records bore the appearance of old and original entries in the book.

On asking Dr. Long why he did not write to me or make known what he had done, he said, when he saw my dates he perceived that I made

the *discovery* before him, and he did not suppose that anything done after that would be considered of much importance, and that he was awakened to the idea of asserting his claims to the first practical use of ether in operations, by learning that such claims were set up by others for this merit, and consequently he wrote to the Georgia delegation at Washington, stating the facts which Senator Dawson had requested me to inquire into.

I have waited expecting Dr. Long to publish his statements and evidence in full, and therefore have not before published what I learned from him. He is a very modest, retiring man and not disposed to bring his claims before any but a medical or scientific tribunal.

Had he written to me in season I would have presented his claims to the Academy of Sciences of France, but he allowed his case to go by default, and the Academy knew no more of his claims to the practical use of ether in surgical operations than I did.

Charles T. Jackson, M.D.

Boston, April 3, 1861.

The list of operations as given by Dr. Jackson is not complete, as he has omitted the second operation on Venable, and a number of the later operations. In a letter to Dr. Sims, which I have, Dr. Long denies absolutely that he ever acknowledged that Dr. Jackson was the prior discoverer. He

had been led to infer that ether had anæsthetic powers several months before he got a chance to verify it, and before Jackson claims to have made similar inferences, but he dated his claims of discovery from the time of his first practical demonstration. Before that it was a mere supposition, as was Jackson's also. But barring these inaccuracies, Dr. Jackson's paper, coming as it does from one who so zealously coveted the title of discoverer, is a remarkable admission.

The interview between Long and Jackson must have been most amicable, and Long evidently felt the greatest respect for Jackson, as shown in the following letter:

Athens, Ga., Nov. 15th. 1854.

Dr. C. T. Jackson.

Dear Sir: I design to prepare an article with the proofs of the priority of my claims of the discovery of the anaesthetic powers of ether and of its applicability to surgical operations. I design having this published in pamphlet for distribution among the members of the medical profession, and I expect to present such proof with the article as will satisfy all that I am entitled to all I claim.

Ours are rival claims, and permit me, sir, to say that although our claims are conflicting, I would not knowingly say anything in the article which would be displeasing to you. I entertain

high respect for you as a gentleman and man of science and feel honored by your acquaintance.

Still it becomes each one of us to use all honorable means to advance his own claims, and I know you will not blame me for attending to this matter, which so much concerns my reputation.

Shall it meet with your approbation, I may refer to your admissions to Hon. W. C. Dawson, and myself, of the belief of the correctness of my claims. I will however, make no allusion to your letter to Mr. Dawson or to the conversation held with myself unless it meets with your sanction . . .

Your obedient servant,

C. W. Long.

It has often been stated by the friends of Morton that he never attempted to enforce his patent. The following letter from a prominent army surgeon to Long may be of interest.

U. S. Marine Hospital,
Chelsea, Mass.,
April, 1859.

Dr. Crawford W. Long, Athens, Ga.

Sir: Hon. Judge Hillyer, Solicitor of Treasury Department, informed me about a year since, and recently repeated the same, that some years since you used sulph. ether as an anaesthetic and had a record of the same. If it is not asking too much of you, I would be greatly obliged if

at your earliest convenience you would forward me a statement of the facts.

I take the liberty to ask this of you because Mr. W. T. G. Morton, to whom in conjunction with Dr. C. T. Jackson a patent was granted in Nov., 1846, for using ether, has brought a suit against me as a government officer for an infringement of his patent.

Judge Hillyer was confident that you could furnish me with proof sufficient to satisfy a jury that you used it way before he or Jackson claimed to have made the discovery. I should have asked for these proofs through my attorney and had them properly witnessed, etc., but the Secretary of the Treasury having decided that I used the article on my own responsibility and therefore the Govt. were not bound to defend me, I wish to save as much expense as possible.

Very respectfully,

(Signed) Charles A. Davis, M.D.

Physician and Superintendent.

In reply Long gives a detailed account of his work, and then adds:

I presume Dr. Jackson is not party to the prosecution, as I know he entertains no good feelings towards W. T. G. Morton. If you think proper you can see him and ascertain the character of proof I can make. From the little acquaintance formed with him I entertain a high opinion of him as a gentleman and think he will do me justice notwithstanding he himself claims to

have made the discovery and has received several awards.

Dr. Davis' letter was written twelve years after Morton's "Letheon" was patented, and many years after ether was the common property of the world.

From an exceedingly well-written paper by Dr. Hugh Young of Baltimore, who had access to all of the material relating to my father's discovery, read before the Johns Hopkins Historical Society, November 8, 1896, I quote the following:

Long's work was unknown to the world until 1877, when J. Marion Sims, learning of him through accident, investigated his claims, was fully convinced of their merit, and vigorously demanded their recognition by the medical profession. His paper appeared in the *Virginia Medical Monthly*, May, 1877.

This article, which obtained for Long the first recognition of any consequence, was the outcome of a conversation which Sims had with a Dr. P. A. Wilhite of Anderson, S. C. Wilhite told Sims that he had witnessed the first surgical operation ever done under ether, and recounted Dr. Long's first case, saying that he was one of the four students then in Dr. Long's office.

Wilhite did not enter Dr. Long's office until 1844, two years after the first operation, as the following letter from Long to Wilhite shows:

Athens, Ga. May 20th, 1877.

Dr. H. P. Wilhite,

Dear Sir:

I received Dr. Sims' article on anaesthesia yesterday, and find several mistakes. Dr. Sims states that yourself, Dr. Groves, Dr. J. D. and Dr. H. R. J. Long were students of mine, and witnessed the operation performed on Venable in 1842. Your recollection failed you at the time. As it was several years, at least two, before either entered my office, you will see that you were mistaken in giving this information. You also made a mistake in saying that the first inhalation in Jefferson of ether for its exhilarating effects was before the same persons. I wrote to Dr. Sims informing him of the errors, and asking him if he considered the mistakes of sufficient importance to be noticed.

(Signed) C. W. Long.

Dr. Wilhite replied as follows:

Anderson, S. C. June 27th, '77.

Dr. C. W. Long,

Dear Doctor: Yours of the 22nd. inst. is at hand, and I have just received a letter from Dr. J. M. Sims, which I will answer today. In my statement I did make a mistake in regard to my being present at the first or second operation, which mistake I will correct. But if you still prefer I will send a certificate.

Let me know and I will give you any information or assistance in this great matter.

Yours truly, etc.

P. H. Wilhite.

Among my father's papers is a certificate from Dr. Wilhite. Many affidavits were secured, not only from witnesses to operations performed upon anesthetized patients, but from some who had known and discussed the matter with the patients, or outsiders. This action was taken to prove that there was nothing hidden or mysterious and that the public knew the agent used to produce insensibility.

State of South Carolina, Anderson District.

I, Philip A. Wilhite, do state that in the month of October, 1844, I entered the office of Dr. C. W. Long of Jefferson, Jackson county, Georgia, where I continued some eighteen months. That very shortly after I entered his office and not later than the beginning of the year 1845, I heard the said C. W. Long speak of having used sulphuric ether by inhalation to prevent pain in surgical operations, he referring to a period of time before I entered his office, at which it had been used. Among other instances of which mention was made he had used sulphuric ether by inhalation, in cutting off tumors from the neck of James M. Venable, of which I heard Dr. Long and many others who had witnessed the operation frequently speak, and my impression is that I heard Venable himself speak of the operation as having been performed without feeling any pain. My recollection is distinct

that the use of sulphuric ether by inhalation in such cases by said C. W. Long about the latter part of 1844 and early in 1845 was public and notorious about the town of Jefferson, from the mention so frequently made of it in my presence.

(Signed) P. H. Wilhite, M.D.

Sworn to and subscribed before me 4th February, 1854.

R. S. Vandiver, N.P.

This certificate is positive proof that Dr. Wilhite did not witness my father's first operations, neither did he encourage him to use ether to prevent pain in surgical operations, as he stated to Dr. Sims. Says Dr. Young: "It is to be regretted that the justification of Long's claims should have been linked so closely with such misstatements."

Sims sailed for Europe soon after the publication of his article, and Long died in a few months, and Wilhite's statements went unchallenged for many years, when in an article in the *Virginia Medical Monthly*, Dr. L. B. Grandy of Atlanta showed the error of Wilhite's statements.

From all parts of the world men prominent in the medical and other professions hastened to give him the credit which had been so long withheld. His claims were never

investigated by the American Medical Association, as he often desired, but many minor societies and the Eclectic Medical Association and the Southern Medical Association passed decrees in his favor. But he was not long to enjoy the praise and honors that were bestowed upon him.

Jacobs states:

He bore a good and strong man's part in all the increasing burdens that fell upon the Southern people while rebuilding the destroyed fabric of that old civilization which was so full of charm and vibrant life. His wisdom and poise, his friendly advice and help were an example and constructive force in all movements for the good of his community. He did his full part in all civic endeavor, in his city, county, and State, that has resulted in the splendid position our Southland now, amid her restored conditions, holds in the progress of the world. Thus he continued to work until failing health, brought on by over-exertion in the performance of his duties, exhausted his powers. And it was consonant with unselfish devotion to duty, that the end of his labors should illustrate the trend of his whole life.

Although my father held himself aloof from the notorious ether controversy, in his spare moments he vigilantly safeguarded his own claims by procuring evidences from

witnesses of operations which he had performed upon patients anesthetized by the inhalation of sulphuric ether, also from many who, although not witnesses, knew of these cases from common report.

The first State Medical Society in Georgia had its origin in a meeting of physicians in Macon, March 20, 1849. The meeting was called by the Medical College of Georgia and the local societies of Savannah and Macon. About eighty delegates were present, among them my father. At this meeting was discussed what action it would be wise for him to pursue to receive the credit for his discovery.

Dr. Paul F. Eve wrote to him as follows:

Dear Sir: Augusta Ga., April 20, 1849.

I have read your communication with much interest. I certainly think your claim to the use of etherization in surgery as the first discoverer, a good one. Pray prosecute the matter. I shall take great pleasure in receiving any article on the subject for the Journal. Do this as early as you can and fortify the claim by the oath of the patients (if they can be procured) to the state of insensibility. I shall await a communication from you.

In great haste I am most respectfully,

Yours, etc.

Paul F. Eve.

THE FAMOUS ETHER CONTROVERSY

A letter from Dr. C. Quintard, Recording Secty of State Society, later Episcopal Bishop of Tennessee read:

Roswell, Jan., 4, 1850.

Dear Doctor:

Your letter was received in due course of mail. The plan I would suggest for you to obtain what is undoubtedly due you is as follows; collecting all the testimony, affidavits and etc., that you can draw up a paper on the subject and read it before the State Medical Society at its next meeting in Macon on the twentieth of April.

If I am present which I shall probably be as Recording Secty., of the State Society.

I will move the appointment of a Committee to report on the subject. This Committee will report favorably and the matter can then be brought before the American Medical Association for a recognition of your claims. This seems to me the proper course for you.

It will undoubtedly thus appear in the most dignified form before the American Association and you will have your name enrolled as the first to use an anaesthetic.

Wishing you much success

I am, dear Sir

Yours most truly,

Dr. C. W. Long

C. Quintard.

VII
THE CIVIL WAR

CRAWFORD LONG had long desired a wider field for the practice of his profession, and with his little family and faithful negro servants moved to Atlanta, where he remained one year. He soon had a flourishing practice, and made investments in what is now the business section of the city. On a square across from the Piedmont Hotel stood, until recent years, the two-story brick house he built for a home.

At the time of my father's removal, 1851, it had always been the custom in the South for the young physician to have in connection with his office what was called his drug shop, where he rolled his pills, weighed his powders, and compounded his own prescriptions. As his practice and fortunes increased he generally invested in a drug store. My father followed the usual custom, and with his brother, Dr. H. R. J. Long,

bought the business of two physicians and pharmacists in Athens who wished to retire, and established what was known for many years as "the largest wholesale and retail drug house in Northeast Georgia." In the rear of the building was the private office. Later in life my father became the owner with his son as junior partner and manager, his practice being so exacting he had but little time for anything else.

Says one of his old clerks: "He was quiet, unassuming, gentle and gracious in manner, but was exacting and particular in business dealings and required order, system, and cleanliness in all the appointments of store and office. He was of a sociable disposition, which attracted many friends who enjoyed his quiet pleasantries and good humor." He had so much refinement and delicacy of feeling that no one ventured to use an oath or an obscene word before him.

As was the custom in the South, his home had spacious grounds, where grew flowers, fruit and vegetables, a large grove under whose shade the children played, a pasture in which the cows grazed, a stream where the horses, including the ponies for the children of the family, were watered. Sometimes

the stable man allowed us to ride the large horses, which we did without saddle or bridle at breakneck speed. The following lines as expressed in my mother's journal, written in 1886, give a glimpse of the home life about this time (1859).

We had prospered in this world's goods, had a lovely home, and sweet, pleasant children, two sons and three daughters. My husband was the leading physician, fine looking, a devoted husband and father, a kind, judicious master, beloved and respected by all classes. Our home was a paradise where our "olive plants" thrived apace. A large and lucrative practice enabled us to live handsomely, without entrenching on other sources of revenue. Our olive plants became more numerous, but it mattered not—we had a welcome for all. They made us very happy.

A large plantation was bought and negroes, most of them inherited, were placed upon it. They did not support themselves by their labor, but their natural increase made them valuable had he chosen to have sold them, which he never did with one exception, a man who was a confirmed rogue.

The following letter will show his solicitude for his servants. He often said he thought that the Providence of God had permitted slavery in order to Christianize the African race, and regarded his slaves as a sacred trust. He closes a prayer written in his journal thus: "May I be a more considerate husband, a more tender father, and a better master."

New York, April 26, 1854.

Mrs. C. W. Long,

Dear Caroline: You can scarcely realize how anxious I have been for several days to hear from you. I feared something was wrong, which prevented you from writing. Your letter of the 16th was not received until this morning, and how sad it makes me feel that you have been sick and had such trials and troubles. How much I wish I could be with you to comfort and cheer you, if still sick, and as well to lighten your other trials.

How sorry I am to hear of poor Melvina's¹ sickness and derangement. Mr. Terry arrived here yesterday morning and told me there was something the matter with a negro girl of mine. I supposed it was another attack of jaundice, but did not think it would last long. This made me uneasy, but I felt much worse when I

¹ Melvina was a slave domestic.

learned from your letter what a desperate condition Melvina is in. How dreadful it would be for her to become a confirmed maniac. I do hope she will recover both from her mental and bodily disease. Restless and uneasy as I am, yours must be a severer trial than mine—you sick, our dear children sick, and then the other trials added. I do hope that the good and great God who has been so kind and gracious hitherto will preserve and protect you in all your trials and afflictions and make these trials a blessing to us. They are sent for some wise and good purpose. May we see their intent and profit by them.

I hope very much that Melvina's mental affliction is produced by some disease of the body, which can be relieved and that I may find her recovered when I once more reach our humble, but to me sweet home, and once more clasp in my arms your dear form and receive the embraces of our sweet children. Home never felt so sweet to me before nor did I ever realize before how dear were these loved ones, who, I trust, are now well and happy in that little home.

I shall hurry through my business as quickly as possible and, if God preserves and protects us all, we will soon meet again, and once more be happy in each other's society.

I have never enjoyed a trip less than the present, and although I wrote as cheerfully as

possible from Columbia, I had sad forebodings which I would not express. I trust that the cause of my forebodings has passed away.

Jones wrote me on the 18th, but said nothing in regard to your health and Melvina's condition.

Yesterday morning I went to Trinity Church and heard a good sermon. In the afternoon, some company came around to the hotel and invited us to walk out and see the city. We spent about three hours walking; visited the mission house and then Five Points, and saw the efforts to reform that "sink of iniquity." They pronounce that part of the city reformed, but it is now the most wretched looking place I ever saw. The missionary effort is greatly blest and with perseverance they will reform that part of the city.

I have not time to write more, but will give you an account on the sights when I once more enjoy the pleasure of being with the dearest and best of wives.

Your husband,

(Signed) C. W. Long.

In this letter no mention is made of any pecuniary loss resulting from the unfortunate condition of his slave, only great sympathy for her physical and mental affliction.

That many agreed with his views that slavery was God's method of civilizing and

Christianizing the negro was proved by the efforts of the better class of the South to subject them to religious influences. They were made to marry, Sunday schools were taught by the white matrons and their daughters trained the youth.

The superintendent of the negro Sunday-school in Athens was one of our most eloquent lawyers, Thomas R. R. Cobb, author of a book on slavery, who later became a Confederate general. He was killed at the battle of Fredericksburg.

Many of the slaves were members of the churches attended by their owners, the galleries being reserved for their use. Communion was administered to them by the officers of the church, and when the hour for evening prayer in the home arrived a bell was rung as a signal to the house servants, who after their entrance ranged themselves against the wall, listened to the reading of the Bible, and reverently knelt during the prayer offered by the master or the mistress.

The usual routine of life went on with its everyday duties fulfilled and its simple pleasures enjoyed, until the fateful days of the sixties. My father's business had

prospered and by inheritance and from his own labor he had amassed what was then considered a fortune. He was gradually relinquishing his profession, for having attained to the age of forty-six years, he longed for more time for reading and study. He was reared in a literary atmosphere, his father possessing a wonderful collection of old books. With leisure he could also travel abroad, something he greatly desired to do.

John Brown's raid and Lincoln's election threw the South into a turmoil and soon the secession of South Carolina took place. Although too young to realize the seriousness of the condition of affairs, I recall the impressions of a visit in the spring of 1861, made by Ex-Governor Swain of North Carolina, my mother's uncle, who was returning from Charleston after attending a meeting of delegates from the Southern States in that city to discuss the wisest course for the South to pursue. He and my father deplored secession, feeling that the Republican president should have been tested before trying so serious a thing as dissolving the Union. They had ardently supported Mr. Stephens' great and tireless efforts to prevent the movement for

Georgia's withdrawal and to adjust all differences between the sections, but when Georgia seceded, my father went with his state and supported the cause of the South heart and soul. When the news came of Georgia's decision the young men of Athens celebrated that event with a torchlight procession. The flaring torches and the band of music fascinated us children of the family and we begged that we be permitted to go on the street and see it. To our surprise my father refused the request, declaring: "It is the saddest sight of my life." He paced the room for hours, realizing the inevitable result of war between the states. It has been said that the only political speech he ever made was against secession.

After the fall of Sumter, the younger men in their gray uniforms marched away to the various scenes of action, leaving the middle aged and old men, but before the four years of strife were over, there remained only the very old of these men and lads under sixteen, with the exception of those appointed for special duties. Among these was my father, who without solicitation had been designated to remain at home as physician for the families of the soldiers,

and for the wounded who had been sent home to recuperate.

A memorial of this service has been presented to his family in the form of a Cross of Honor from the Georgia Division of the Daughters of the Confederacy, Laura Ruth-erford Chapter, Athens, Georgia, No. 1912, with record in their minutes as follows:

To Crawford W. Long who rendered very material aid to the Confederate Cause in various ways. Dr. Long was appointed by the Confederate Government as physician at Athens, Georgia; for the families of soldiers absent from home fighting for the Confederate Cause, and was relieved from active service for this, and to act as surgeon for sick and wounded soldiers at the University Campus Hospital.

(Signed)

Thos. Bailey. White's Reg. 55th. Ga. Vols.

H. R. Palmer. Co. K. Cooks Btn.

W. G. Carithers. Adj. Camp 478.

W. G. Morton. A.D.C. Cobb Deloney.

He was one of the owners of the largest drug house in northeast Georgia and, realizing that when all ports were blockaded great suffering must result from a dearth of medical and surgical supplies, he ordered

a large consignment which reached Savannah at the outbreak of the war. They were paid for twice, first to the Confederate Government (which seized the cargo as contraband) and again after the close of the war, after years of privation and toil, both principal and interest were paid to the firms in the North from which they had been purchased.

His forethought in supplying himself with medicines, especially ether, chloroform, carbolic acid and iodine, saved many lives as government supplies were very scant. Iodine, which was universally used by Southern surgeons in treating wounds, was practically abandoned by the profession as a disinfectant until the recent World War, when its virtues were again recognized and the soldiers of the Allies were supplied with it and taught to apply it. In an issue of the London *Lancet* published about 1915, was a most interesting article on "The Treatment of Gun-Shot Wounds by Iodine by Southern Surgeons during the Civil War, and the Resumption of Its Use."

Every day life grew harder. New Orleans and Vicksburg had fallen, our little town was crowded with refugees. The necessities of the soldiers must be attended to first.

The absolute destitution of the comforts of life (except our well-furnished homes and splendidly trained servants) made it necessary to exert every effort to support life. All enterprises were at a standstill with the exception of cloth and grist mills. There was a year when the wheat crop failed, and the poor lived entirely upon corn bread. We were so fortunate as to have wheat bread once a day, but the greater part of the wheat raised on our plantation had been requisitioned by the government, for the army must be fed. Corn meal cooked in its various forms was passed with the old time ceremony by the dining room servants. I can never forget the howl of rage my little brother would give when he saw the contents of the plate: "Old corn dodgers," he would cry with the tears streaming down his cheeks.

Southern women became wonderfully resourceful in devising ways by which to alleviate their lot. Old garments were turned and dyed; even handsome damask curtains that once ornamented drawing rooms were made into dresses for the young girls; hats were woven of palmetto; ladies' bonnets were ornamented with really beau-

tiful flowers made of feathers skilfully tinted. No longer were dainty slippers worn, but rough shoes. They were particularly prized when enough cloth could be found to make their uppers. Persimmon seeds were used as buttons and thorns for hairpins. Equal ingenuity was displayed in concocting palatable drinks and food from unpromising materials. Sliced dried and parched sweet potatoes, roasted rye and wheat were substituted for coffee, sorghum for sugar, sassafras and raspberry leaves for tea. A neighbor's butler brought with his mistress' compliments at breakfast time, one morning, a handsome silver coffee pot containing a new discovery highly recommended, a simulated coffee brewed from dried parched okra. (Not a drink fit for the gods, said one profane soul, but "hell's broth.") To such straits we were reduced, that cakes were made from sorghum, unsiced and unflavored, but delectable to us, fruit cake from dried fruits, blackberries being considered particularly fine for this purpose. Wines were made from grapes, berries and tomatoes. Corn beer was greatly enjoyed and a beer made from persimmons and locusts was unrivaled.

The small stores of foreign wines and liquors were buried or hidden in secret places by their owners. Owing to the high price and scarcity of medicines, herbs and decoctions from roots and barks were in great vogue. The dirt from smoke houses used in those days for curing meats was leached for salt. Confederate money was rapidly becoming worthless, and farmers exchanged their products for other commodities, nails, leather and factory thread being considered by them as particularly desirable. There was no longer oil for the lamps, but candles, moulded from tallow, and dips, as they were called, which were made of a large round wick dipped in a composition of hot tallow and wax and wound around a corn cob, were used. The finest of all lights was that of a pine torch, by which many times, prone on the floor, face downward, body supported by my elbows, I have studied school lessons and pored over old books and magazines long out of date. What joy to get a new publication which in some way had run the blockade, perhaps a volume of Dickens or "Les Miserables," which to the untutored mind was known as Lee's Miserables, and which was until read

supposed to be a recital of the suffering soldiers.

My mother, like all the Southern women, sewed and knitted, meeting with other friends weekly to make lint and bandages for the wounded soldiers. Her seamstress was kept busy fashioning clothes for these men. The most difficult thing the women had to do was to manage the family finances, the "family" including the servants.

My father's duties were so exacting that my mother like many other women dispensed food, clothing and medicine for a large family of dependents whose claims absorbed her waking hours. She learned the arts of weaving and spinning from those few women living in remote country districts who had never given up this industry, and who were glad to instruct those whom they had considered "lilies of the field." The intricacies of weaving are thus described in Ovid's "Metamorphoses":

The piece prepare
And order every slender thread with care,
The web enwraps the beam, the reed divides,
While through the widening space the shuttle glides,
Which their swift hands receive, then poised with
lead
The swinging weight strikes close the inserted thread.

She trained several negro women who from that time did nothing but weave cotton cloth for summer and woolen for the winter clothing of the servants (for they were never called slaves). She supervised the cutting and making of the garments and the knitting of socks and stockings.

When the time came for the syrup to be made, the hogs to be killed and the meat and lard put away, it was she who filled the overseer's place in this duty. White overseers had long been superseded by the trusted negro foremen. The position of mistress must have unconsciously fitted her for a dominant position, for her authority was never questioned. She was only one of many. My mother spent weeks at our plantation with us, her children, my father coming up for brief visits. Her faithful carriage driver often slept outside her door for protection.

My father regarded slavery as "God's method of civilizing the negro," the possession of his servants as a trust to be administered as a divinely imposed duty. This view was universal among the better class. It may be interesting to know that there were many, and it is even claimed more,

slave holders in the Northern army than in the Southern, proving Mr. Stephens' affirmation that the contest which ended in the war was indeed a contest between opposing principles, but not such as bore upon the policy or impolicy of African subordination. "They were principles deeply underlying all considerations of that sort. They involved the very nature and organic structure of the Government itself. The conflict on this question of slavery in the Federal Councils from the beginning was not a contest between the advocates or opponents of that peculiar institution, but a contest, as stated before, between the supporters of a strictly Federative Government on the one side and a thoroughly National one on the other."

One summer morning in 1864, news came that General Stoneman, commanding a division of Federal cavalry, was nearing Athens with orders from General Sherman to burn all the towns and cities that lay in his path, take all the mules and horses from the farmers, destroy all provisions and to decoy away all the negroes both male and female. A wounded young captain on horseback, with his crutches, dashed to

our door bearing the message from my father to my mother that the carriage must be packed with the silver and other valuables, and that I was to accompany them under the escort of the captain to his father's plantation home which, being away from the main road, was considered safe from any raiding party. The trusted coachman, Humphrey, was hiding the horses in a swamp a few miles back of the town, so it devolved upon my little brother to act as driver.

Just before starting upon our flight my father came in hurriedly bearing a glass jar containing among other things two old-fashioned and very large gold watches. The larger of them my grandfather had worn for many years, the other was made by a famous watchmaker of Liverpool who was largely patronized by Georgians in the first half of the nineteenth century, and to whom my grandfather had sent gold from mines near Dahlonega, Georgia, in which he was interested, to be converted into four watches, one for each of his children. Later the mate to my father's was snatched from the pocket of my uncle by a Federal soldier, and never recovered.

In this jar was a roll of papers securely tied, which, my father said, "are most important and under no circumstances must be lost, they are the proofs of my discovery of ether anesthesia. Promise me that when you reach your destination you will bury them in a secluded spot, but if overtaken by the raiders, you may be frightened into giving them the jar if ordered to do so." This speech put me on my mettle, and I replied: "I will die before I do."

When we reached the plantation home I found the room I was to occupy nearly filled with trunks in which silver and valuables were stored, sent to what was considered a place of security. The captain's sister, whose husband was in the army, after learning my errand made the arrangements for me to carry out my purpose. My short dress was lengthened to the ankles, the jar suspended by a strong cord was tied underneath around my waist. With arms akimbo, I skipped gaily along apparently for an afternoon walk, but the dangling jar played havoc with my knees. An ugly black old negro man furtively watched us until we were out of sight. How my heart beat with fright until he disappeared. We

felt we had disarmed suspicion by our care-free manner, and after finding an appropriate place the young woman drew out a concealed trowel, dug a hole, buried the jar and covered the place with leaves and sticks. The next day the news came that the raiders had been captured by Col. W. K. P. Breckenridge about twenty miles from Athens at a little place called Jug Tavern, now known as Winder.

Some years ago the ladies of that town on Memorial Day took up the remains of a Federal soldier on the battle ground, and reinterred the body with honors in the cemetery. A large number participated in this ceremony. The other bodies had been taken up by the Government and buried in a National cemetery, but for some reason this body was overlooked. The grave is regularly decorated with those of the Confederate dead. Unfortunately, the name of the Federal soldier was unknown.

Our great adventure terminated happily, the jar was resurrected and my brother and I returned home. After that life grew harder each day; none but those who passed through those days of trial can imagine the want and distress of the people.

By the spring of 1865 came the surrender of Lee and Johnson. "The soldiers straggled home, by rail, on foot and a few on broken-down horses, ragged, emaciated with hunger and disease, to find chimneys all that remained of their homes, forests cut away and fences burned. Sorrow, hunger and hopelessness had set its mark on every face."

A new era began. Of the 1513 white men and boys in Athens and the county in which it is located 1300 entered the army, nearly half of whom either were killed, died or were wounded. The few returned soldiers, the remnant left of the original 600,000, which had composed the army of the South, had fought for four years bravely against more than twice their number, "had fought with honor, surrendered with honor and abided the issue with honor," becoming once more loyal citizens, as demonstrated in the Spanish-American and the recent World War.

In May, 1865, Athens became a Federal garrison. The officers did all in their power to maintain order. Crowds of ignorant negroes flocked into the town from the surrounding plantations with the wild idea that they would no longer be required to

work, and that each would be given "forty acres and a mule." Their boast was: "I don't have to work, I's free as a jay bird." The result was that in one day the Federal officers sentenced one hundred and fifty-one to become not "jay birds," but "jail birds." The commanding officer made a speech advising them to go to work. "Labor," he said, "should not be taxed to support idleness. Go home and work for your former masters for such wages as they will pay you."

Only three from my father's plantation left, much to his regret, as the men spent their time hunting and fishing, not realizing their families must be fed. One by one hogs and sheep disappeared to appease the appetites of these idlers; thus the Southern farmer was forced to depend upon cotton as a staple crop.

To add to the burdens of the master, there were old men and women who in youth had given cheerfully of their strength and who for years had been relieved from work. Of these, there remained his old nurse and her son, who had been the playmate of his boyhood and whose wife had formerly been his mother's cook. The family history

of these two had been interwoven with that of his own for more than a century. Poor, helpless and unhappy, they were assured of a home for the remainder of their lives on the old plantation, which they accepted with relieved hearts, and when Death called them they found their last resting-place in the plantation burying ground.

For economical reasons the number of servants was reduced in the home. Three of the most trusted remained for years, serving as before, but as wage earners. My mother often said, that she gained her freedom when slavery was abolished, and was glad to be relieved of so much responsibility.

The returned soldiers went to work to bring order out of chaos. Men unused to manual labor, with broken-down cavalry horses and some with only oxen, tilled the fields. Poverty had no sting, as it was almost universal. A few had saved their cotton which brought almost fabulous prices. Unfortunately Stoneman's raid was the occasion of my father's losing about eight thousand dollars' worth. Could it have been saved he would have been spared many hours of toil and care.

The negroes were beginning to adjust themselves to their new conditions, although many still remained in idleness. Business was approaching a stable basis when the Reconstruction Period began. A few of the lowest classes of native whites allied themselves with the carpet-bag régime. Negroes from the plantations, crazed with visions of lust and rapine, made life almost intolerable. They held secret incendiary meetings, parcelled out the handsome homes and boasted that they would make their selection of mistresses from the beautiful girls of the town. Women in the country feared to be alone, and men dared not venture forth unarmed. The better class of negroes, holding aloof, were contemptuously termed by them "white folks niggers."

Confiscation of all property was threatened and for the only time in my life, I saw my father almost in despair. "What can I do?" he exclaimed, "if my home and lands are taken from me? My stocks and bonds are worthless." My mother sought to comfort him; finally she said: "The day will come when you will be recognized as the discoverer of ether anesthesia." This but intensified his anguish. "Never

again mention the word anesthesia to me," he replied with such poignancy of feeling that, young and thoughtless as I was, I realized how quietly and bravely he had borne this lack of recognition so many years. It was a matter which had never before been discussed in my presence.

The excitement and apprehension of political friction during the late fifties, the four years of the horrors of war, and the effort at adjustment to present conditions, toiling to support a large and helpless family, left him no time to brood over past injustice.

One of the most vivid pictures which remain to me on "Memory's Wall" is one of a little child who, while playing by the fire, saw her adored father enter the room with a hurried step, utter a few words to her mother, and with her ascend the stairs leading to the attic. Struck by his unusual manner of suppressed excitement, wondering that she had been ignored, as he neither spoke nor caressed her, indignant and curious, she followed. He unlocked a little green traveling trunk, took from it a package of papers, rushed back to his buggy and was driven rapidly away. My



MRS. FRANCES LONG TAYLOR. THIS PHOTOGRAPH REPRESENTS THE ONLY LIVING PERSON WHO, ALTHOUGH A SMALL CHILD AT THE TIME, RECALLS THE VISIT OF DR. JACKSON, MARCH 8, 1854, TO ATHENS TO INVESTIGATE DR. LONG'S CLAIMS AS THE DISCOVERER OF ETHER ANESTHESIA. NOT UNTIL YEARS LATER, IN 1864, DID SHE COMPREHEND ITS IMPORTANCE. WHEN GENERAL STREIGHT, A FEDERAL OFFICER, WITH ORDERS TO BURN THE TOWN APPROACHED ATHENS, DR. LONG GAVE HIS ANESTHESIA PAPERS AND PROOFS, ENCLOSED IN A LARGE GLASS BOTTLE, TO HER WITH THE SOLEMN INJUNCTION THAT UNDER NO CIRCUMSTANCES MUST THEY BE LOST, BUT TO BURY THEM AS SOON AS SHE REACHED HER DESTINATION, A REMOTE COUNTRY PLACE. THE RAIDERS FAILED IN THEIR ATTEMPT, THE PAPERS WERE UNBURIED AND RETURNED TO THE OWNER. THIS IS HER FIRST REMEMBRANCE OF THE WORD ANESTHESIA, AS DR. LONG'S DISAPPOINTMENT AT NOT BEING GENERALLY RECOGNIZED AS ITS DISCOVERER MADE IT A FORBIDDEN SUBJECT IN HIS HOUSEHOLD.

mother cautioned me never to play with the contents of the trunk, should it accidentally be left open, as the contents meant too much to my father. Years later I was told that they must be preserved as they would make my father a great man some day. Thus dimly do I recall Dr. Jackson's visit in 1854. Then followed oblivion as far as these papers or anything that pertained to them, until they were placed in my keeping at the time of General Stoneman's raid in 1864. Not until then did I realize fully their value.

My father was a man who bore disappointment and sorrow uncomplainingly, keeping them secret in his soul lest others be made unhappy, yet there were times when his utter silence made us realize his suffering, but there was never repining or bitterness. As expressed so beautifully by Dr. Chalmers DaCosta:

He carried with him through life no ignoble rancor. Disappointment there must have been, but there was never hatred of his fellows. He had been excluded from honors that were justly his, but he never kept the thought of it as something to chew on when feeling Byronic. He in no sense became that desolate human calamity, an

embodied grievance. A grievance wears out sympathies and tires out our appreciation. There was nothing morbid in his temperament. He never scoffed at Destiny or denounced Fate. He never claimed to be an unappreciated spirit or a misunderstood soul. He calmly went his useful way, tending the sick, aiding the needy, caring for his own, sure of himself, confident and fair to all, generous ever to opponents, courteous even to critics and making no struggle for stained wreaths or tarnished rewards. He was a complete man, a rounded character, a true physician. When we honor him we find no apologies necessary. He never tried to patent and thus coin into dollars a discovery that has brought and will bring comfort unspeakable to countless thousands of the race. He thoroughly loved his profession. He had that splendid combination, strength and tenderness.

A great burden was lifted from the hearts of the people when better counsels prevailed and they found the threat of confiscation would not be enforced. The South felt that had Abraham Lincoln lived they would have been spared the humiliation and horrors of that time. Their hopes revived and they went to work with renewed energy, to "make the waste places glad."

For some reason, of which my father was ignorant, he was treated in many ways by the officers of the garrison with much consideration, although he did not personally know them. To his great surprise the position of surgeon of the post was offered to him by Captain Trowbridge, who said that it was accorded him "for his skill in surgery and his reputation for honesty and integrity."

The contract reads thus:

War Department
Surgeon General's Office,
Washington D. C. May 28, 1867.

Dr. C. W. Long:

Sir: I have the honor to inform you that your contract with Brevet Col. C. F. Trowbridge, Captain 16th. Infantry, U. S. Army, dated April 25, 1867, Athens, Georgia, Clarke County, for duty at same place has this day been approved by the Surgeon General, J. S. Billings, &c.

This position was filled by him until civil government was enforced. Some of his friends were at first inclined to criticize him for accepting the position, but when they realized it was not a political move

but an opportunity to use his influence in bettering the condition of the people, they recognized the wisdom of his acceptance, particularly as time progressed and they saw beneficent changes result from that influence. Captain Trowbridge was succeeded by Col. Blucher, a nephew of General Blucher, who arrived at Waterloo in time to decide the victory for the allies, and pursue the routed French army. Col. Blucher was bred to arms, and with him fighting was a profession. He died only a few years ago, I think at the Soldiers' Home in Washington.

In these dark days there was an air of dilapidation about the public buildings and homes, but men of all classes and conditions of life went to work to rebuild the waste places. Many of them, unfamiliar with manual labor, literally put their hands to the plough, and delicately nurtured women followed in the furrows sowing the grain. In a few instances where no draft animals could be obtained men pulled the ploughs and their wives guided the handles. Fortunately we had no such experiences, as Athens was not in the line of Sherman's march.

I know of one instance where two elegant and cultured young women, having no male members left in the family, painted the fence which enclosed the large grounds of what had been a handsome old home.

VIII

LAST YEARS AND DEATH

IN 1874 adventurers and carpet-baggers, who had grown rich by bankrupting the State Treasury, left, and the state was once more under the control of her own citizens. Life had been for so many years full of privations and sorrows that peace and security were gladly welcomed and Georgians accommodated themselves to the new order of things.

Railroads were rebuilt, houses painted and deserted fields tilled again. The young men and maidens wedded and began life with the determination to make their fortunes.

Luxuries were beginning to be acquired, and the old hospitality was resumed to a great degree. As of yore the mistress of the home gloried in her hedges, flowers, fruits and vegetables.

Once more our stables were replenished and the daily afternoon drives were resumed. If our carriages were a little old-fashioned that was immaterial. It was no disgrace

to be poor, an impecunious aristocrat, only inconvenient and uncomfortable. Music and dancing brightened our lives and we could afford to gratify our taste in dress.

There was money for books, and we could feed our souls. How we reveled in the new novels and essays! Every laddie read the "Idyls of the King" to his lassie, or quoted "Lucile" to her.

It was a proud day when my father subscribed for *Harper's Magazine*, *Littell's Living Age*, and *Appleton's Journal*, but the first periodical ordered by him after the war was the *London Lancet*. He never tired of Shakespeare's plays, and frequently quoted from them. In looking over the book in which he recorded his daily visits, under the name of one of his patients was written "Richard III, Act v, Scene 3," where Richard wakes from his dream, tormented by his conscience. He was the safe guardian of a great many secrets. In another place is a quotation from Tennyson. As children we thought his knowledge knew no limits. He translated our Latin and made our higher mathematics clear to us.

As a young man he was fond of dancing, and all of his life, of the theater and opera,

demanding the best acting and music, although he enjoyed a good minstrel show. He had a discerning eye for form and taste in colors. Whenever he made a business trip to New York he returned with handsome gifts and expensive silks for his wife and sisters, and was a very close observer of ladies' dress. His children were trained never to wear imitation jewels or laces. He hated shams of every kind.

He was a very fine whist player, generally playing at home with a few friends or his family. He often engaged in a game of draughts with his wife. He enjoyed hunting and fishing, and was a wonderful shot with the rifle and pistol. He was fond of good horses and enjoyed, without betting, the races at the county fairs. His wife's carriage horses were from Kentucky, and his children were given ponies as soon as they were old enough to ride. He was a good business man, but his heavy practice forced him to leave his drug store as well as his two plantations in the hands of others much of the time. He had, for that day, very advanced ideas in agriculture.

He dressed well; he wore what was called a frock coat. A very dark dahlia was his

favorite color, also black and dark gray. His suits, generally, were made to order by the best tailors, usually of broadcloth. He was particular in all his personal habits.

The first day of May opened the season for wearing his immaculate white vests, which continued until November first. For a man of his size his hands and feet were small, and he was rarely seen in public without gloves. If we, his children, appeared without them we expected, and generally received, a rebuke. The sensitiveness of his touch was so great that it enabled him to detect some diseases. In the later years of his life he was deeply interested in a precocious young boy, Joseph Jacobs, the son of a Jew of high ideals, a musician, and poetic, yet a practical merchant. Joe's first duties were to polish and keep in order my father's cases of surgical instruments. Gradually he was promoted, and when sufficiently mature was sent each day to the university for instruction in chemistry. In his "Personal Recollections of Dr. Crawford Long," he says:

He was quiet and unassuming in deportment and address, gentle and gracious in manner

with all with whom he conversed, but with ever a retiring and modest mien. He was exacting and particular in business dealings for just and honorable results, and required order, cleanliness and system in all the appointments of the store and office. His kindly disposition and quiet good humor attracted many friends to visit and exchange pleasantries when duty allowed a short respite for social exchanges with his friends, who were the leading citizens and business men. His perfect self-control, kindliness and fine judgment gave him great influence and he was appealed to in many cases to arbitrate.

He was proud and sensitive; he never offered an insult, but it was well known that he would never take one. His friend, Judge Cobb, used to say there was nothing of which Long was afraid, but he would always dodge a bee. On one occasion, soon after the Civil War, when Athens was garrisoned by Federal soldiers, as he was returning home he heard screams in a nearby house, from which soon issued a woman and child pursued by a drunken Federal soldier. Instantly dismounting he jerked a paling from the yard fence and administered a beating to the drunken man, although the latter was heavily armed. He was sometimes satirical. In a conversation with friends one day he used the expression, "an aching void." A "Smart Alec," who was present, said: "Doctor, how can that be? No

void can ache"; to which Long calmly replied: "Have you ever had the headache?" The quaint expressions of the ignorant were an unfailing source of amusement to him, though he was too careful of their feelings to allow them to see it. He once received a note from a patient: "Doctor, please come and see me; I am very sick; when I stands up I falls down; and when I goes to sleep I lies awake all night." When urged to take a rest he would say: "My sick need me." He was loved by both white and black, the latter often speaking of him as "Doctor Saviour."

Those who knew Dr. Long most intimately testify to the fact that he was "a man, and that nothing that pertains to a man was foreign to him," and his work shows that he had the courage of his convictions.

One of the rules of his life was: "If I cannot say a good word for a person I will say nothing."

He had a great reverence for womanhood. He would carry a basket for the lowliest woman with the courtly air others might show to a princess. A veritable termagant used to haul wood into town to sell. Again and again when he met her he bought the load and sent it to his own house. On one occasion Mrs. Long said to him: "We have plenty of wood, why do you always buy that woman's," and he said: "Because I hate people to see a woman doing

a man's work." He would go any distance and attend the poorest negress because of his sympathy for those in the pains of child-birth, and his reverence for maternity.

Having graduated in his academic studies at old Franklin College of Athens, he was always in touch with the affairs of the Alumni Association of the University and always enjoyed the spirit of celebration that pervaded the season at each annual recurrence of "Commencement."

I remember that amid the many and exacting duties of a large general practice, which it was ever his first and earnest care to fulfill, he yet found time to write, occasionally, a humorous sketch for the newspaper then published in Athens, *The Watchman*, edited by John H. Christy. These articles were contributed under the nom de plume of "Billy Muckle," and generally portrayed the "sonsie tricks, the failings and mischances" of some local celebrity, but the identity of the person always veiled by a fictitious name, and localities changed, so as to avoid offense. Yet these occurrences and characters were recognized by the doctor's more intimate friends, and he would have to "acknowledge the corn" when they would circle around him and claim discovery of the "target." It was a great pleasure to him, after some laborious season, or "toss wind o' trouble," to collect some of these friends for "rubbers" of whist.

He accepted all medical tasks as commands, which he was glad to be thought worthy to receive and execute. Once more his business was prosperous and his profession lucrative. The specialist or the city physician cannot conceive of the demands on the physical strength and skill of the general practitioner of that day, who was called upon to treat almost every disease. At one time an epidemic of smallpox prevailed, spread by wandering negroes; as my father had a number of cases, some of them of the confluent type, we were banished to the plantation until danger was over.

The home must have seemed very desolate in the absence of wife and children, as was evidenced in one of his letters:

When you return I shall feel like exclaiming with one of Shakespeare's characters: "Now is the winter of my discontent made glorious summer, and all the clouds that lowered o'er my house, are in the deep bosom of the ocean buried." You will be imprisoned at home for the balance of life when you return, and need not expect to escape from my clutches again. Goodbye, don't get too homesick, but be assured when you do come you will be gladly received and welcomed by
Your husband.

Again he was called to a distant town where he found yellow fever, in another typhus fever, while typhoid and bilious fevers were prevalent. I remember upon one occasion a house was in so unsanitary a condition that he ordered the family moved out and the house destroyed. Cholera in 1854 was conveyed by a visitor from Mobile to his father's home. A few days later the guest, my grandfather, and a servant died from the dread disease.

He performed many surgical operations. Just a short while before his death he was called to amputate the leg of a man living in the country where he had first used ether as an anesthetic. As he was leaving the patient two old ladies (knowing he would be there) entered and with much feeling each kissed him. One felt that he had saved her life in a difficult case of childbirth and from the other he had removed a cancerous breast twenty-one years before. The latter, Mrs. Lucretia Weir McCleskey, lived to a vigorous old age, and died only a short time ago in her ninety-second year. When the operation was performed she was about forty-two years of age. He was very careful in breast operations to remove the glands

under the arm and scrape the ribs; using these precautions there was never a return of the disease. He always refused to operate after the sore had come through the skin. The amount charged for a breast removal was never over one hundred dollars. He often spoke of the rapid increase of that terrible disease.

“Neither consideration of personal comfort nor bodily pain, the fatigue of sleepless nights nor incessant toil was permitted to interfere with the full discharge of his sacred obligations to those who sought relief at his hands.” Day by day his labors and responsibilities increased. In a letter written to me in March, 1874, he says:

For months I have been wanting to write to you, but whenever I have prepared to do so, something has occurred to prevent. This morning I had an engagement to go to Six Miles Station to perform an operation, came to the store with the expectation of taking the train at eight o'clock (the muddy roads making driving almost impossible) I found a note requesting me to wait for a few days, and for this reason, having a little leisure, I will employ it in writing.

Do not attribute my failure to write earlier to lack of interest in your welfare; I feel as much

affection for you and interest in your welfare as is possible for a father to feel in a good daughter. . . . I have been very closely engaged by my profession, part of the time riding and exposing myself when I ought to have been at home.

About the 20th of January I took a severe cold, and for three weeks did not have a moment's ease with my head, and yet was compelled to expose myself every day. I have not had leisure to go to the plantation, eight miles distant, this year.

With a character distinguished by such ennobling traits and such deeds of unselfishness and charity, he could not fail to command the confidence, admiration and patronage of the public who knew him. He was a fine type of the old school doctor.

My father's medical responsibilities seemed to grow heavier each day the last few months of his life. He was obliged to leave early in the morning, frequently not returning until late at night.

The night before he was seized by his fatal illness we were fortunate in having him with us at supper; we remained at the table for hours laughing over the trifling events of the day. He had never seemed more interested or more cheerful. Finally

he grew serious and talked of life and its duties, then rising from the table he said with the greatest gentleness and tenderness: "No man ever had better children than I have." This was his farewell to us. When we next saw him he was unconscious, having fallen upon a patient's bed.

Three score and two years were granted him for the work to which he had been "called" by the Master Workman of us all. When death came it found him fulfilling the tenderest and the holiest duty that pertains to that work, the ushering of a new life into the world: as it came in, however, his own began to go out. With a supreme effort he forced from him for a moment the waters through which he was to pass on his outward way, for a moment the midnight which was to envelop him on that way, but which was to break at the end into glorious morning.

"Care for the mother and the child first," he managed to articulate to the watchers standing by when they would have ministered to him, then the waters and the darkness overcame him.

The noble and simple soul of Crawford W. Long passed as he would have had it pass.

One of the best analyses of Dr. Long's character and service to his community is given in the words of Dr. Lipscomb, the old chancellor of the university:

Despite themselves men acknowledge purity and beauty of character. Had he not that nature and character which diffuse themselves silently and powerfully throughout a community and raise it to a higher level of sentiment and action? None of us was unmindful of his rare merits, and yet it was not until death smote him down, that we fully realized what a large space his virtues and services filled in our midst.

There was nothing about him of what is called demonstrativeness. On the contrary he was a very quiet man, and quiet too, because thoughtfulness was the ruling habit of his mind. Though capable of being roused if circumstances justified a strong impulse, yet he held his force under the check of a beautiful repose. It was his aim to educate his temperament as well as his moral and intellectual qualities for the work of a physician, and one who sets this ideal before him, must keep himself aloof from the noisy excitements of the day.

No doubt but this hindered him from quick access to the paths of prosperity and also delayed that prompt appreciation of his merits by others, which is dearer to most men of talent

than success. Yet every step of such a man is a step towards the height of acknowledged excellence. Modesty may veil his worth but cannot conceal it; the hour is sure to come when the living man, like the finished statue of a great sculptor, will be unveiled before the public gaze; and then it is seen that the patience of self-possession and the absence of all haste in seeking recognition are the truest basis of reputation. One of the lessons of Dr. Long's life is, that worth will make its way to the reverence and admiration of mankind. Postponed it may be, but when the honor is attained, it never fails to repay the tardiness of time.

For nearly forty years he practiced medicine; with what skill, with what constancy of interest and sustained force of sympathy, with what calm enthusiasm of devotion I need not tell you whose homes are this day mourning over a bereavement, which is personal no less than professional to so many citizens of Athens and its vicinity. Personal and professional I repeat, for the man and the physician were united with singular closeness in his character and career.

The intellectual serenity, the truthful emotions, the unhurried painstaking that cautiously wrought out its conclusions, the resolute patience which kept his judgment suspended until all the facts were acquired and analyzed, the tolerance he had for doubt as long as doubt

was a virtue of thought, the prompt and courageous vigor with which he acted when his mind was made up, the composure that surrounded him and in which as a finer atmosphere than that of breathing, he "lived and moved and had his being," the watchful solicitude that was anxiety of heart, the beneficence so responsive to the calls of the poor, and the deep tenderness towards womanhood in the sorrows of her life, so conspicuous in his whole history; these were qualities both personal and professional to the man, and they diffused themselves like a subtle aroma about his presence.

Dr. Long regarded his profession as a channel through which his inner and outer life might flow in blessing to the world. And in that channel it did flow; a stream tranquil but strong, a water from the Fount of the old Bethesda that bore healing to so many.

Dr. Long looked upon his profession as a providential vocation. To him it was not a mere work of humanity, it was more than this; and he accepted its tasks as a divine ordination, for which he was set apart by the touch of a Hand unseen. Occasionally his profound sensibility on the subject would break through his reserve, and then words touching this supreme concern would drop from the conscience of his soul.

He assumed nothing, pretended to nothing he was not, was thoroughly truthful in look,

tone, manner and action, and simply, treated everyone considerately, and walked humbly before God.

Modest even to the verge of timidity when nothing serious was at stake, he was stern and bold and utterly self-forgetful if responsibility had to be met or danger confronted. A large fund of intensity lay hidden in the depths of his quiet nature, which answered with instant and eager force if duty summoned him to action. He had strength of will and much power of endurance. The minor heroisms which make up so large a share of a physician's experience, and of which the world knows so little, wrote many a paragraph in the annals of his life. Emphatically applicable to him were Wordsworth's lines, that,

The facts of human existence
Did take a sober coloring from an eye
That had kept watch o'er man's mortality.

Over three score years were mercifully granted him, and through him to us, to Georgia and the world. Day by day strengthened his hold on our families and the community. All his recent growth, which was so manifest to the nearer circle of friends, was upward into clearer light and purer air. People said of him: "He is growing saintly."

It was noticeable, that the ideal of that profession, to which God has delegated the most solemn and pathetic trusts of our earthly being, steadily rose before his eye into loftier grandeur. Noticeable, too, was the fact, that his sympathies deepened for the sufferings of womanhood, and that with keener enlistments of studious thought and warm affection, he worked and toiled and sorrowed in the tragic hours of her agony.

Nor did those nearest him fail to observe how his old habits of reading the Bible and attending to private devotion waxed stronger and dearer as his professional engagements multiplied.

It became him thus to live. It became him thus to die while discharging the tenderest and holiest duty of his profession, by the bedside of a lady whose life was threatened.

I also quote from a tribute of respect signed by the physicians of Athens, July 6, 1878.

Dr. Long was an honor to the profession, regarding it as a medium through which to make his life a blessing to the world. He was a high-minded Christian gentleman; always just and liberal towards his professional brethren, holding sacred their reputation as his own, by strictly observing the highest code of medical ethics in all his associations with them. He was

never heard to make reflections or criticisms detrimental to any with whom he was called in consultation. As such all his neighboring practitioners held him in their highest esteem and confidence, and almost invariably Dr. Long was called on to attend the sick chamber of Physicians and their families. Truly did he subordinate his desire for fortune or fame, to the one great purpose of benefiting his race. His highest ambition was to do good and to leave the world better by his labors. Truth, honesty, and candor marked his character, while he cultivated the noble qualities of love and mercy.

Not only did he visit the homes of wealth and luxury when called to relieve affliction, but was liberal in bestowing his benefactions to the poor, by carrying relief and comfort to the inmates of hovels, with no hope of reward but gratitude and love.

His warm sympathy for woman was always manifest in his self-sacrificing devotion for her relief and comfort in her hour of trial and suffering, as was so nobly displayed in the very last act of his life.

There were many tributes from papers North and South, also from medical journals, but these extracts give an insight into a life whose uprightness and purity of purpose I am endeavoring to express.

Ten years after my father's death my mother lost her life in a railroad accident near San Antonio, Texas, in which city she was making her home at that time. The death of him to whom she had been so long united and upon whom she had lavished the devotion of her heart and the reverence of her spirit (she married at sixteen years of age and he was ten years her senior) cast an abiding shadow upon her naturally gay nature. She was a temperamental person, as are all the poetically inclined, the antithesis of her husband who was judicial and reflective; the very person needed as his complement. She believed in him; she encouraged him (for like others he had his dark hours); she loved him; in brief she was the inspiration of his life.

She found a sad pleasure after his death in writing reminiscences (all too few, alas) of their happy years together, which made delightful reading. Her descriptions of nature (she was the greatest nature lover I have ever known) are difficult to surpass. She drew these descriptions from the scenery of North Carolina, now known as "The Land of the Sky," in which section of the country she spent her summers.

As the roads in those times were almost impassable, my father provided her with a strong carriage especially constructed for such journeys. One or two of her older children and a negro coachman usually accompanied her on her trips. Adventurous of soul, she was not to be daunted by any obstacle that might arise. I have known her more than once to take the reins from the coachman, when she feared he would lose his nerve, and to guide the pair of horses herself through streams to be forded or sudden storms or inky darkness.

IX

RECOGNITION

DR. MARION SIMS sailed for Europe for an extended visit soon after publishing his plea to the medical profession to recognize Long as the discoverer of ether anesthesia. He scattered his pamphlets abroad, that foreign nations might become acquainted with the fact that Dr. Long's use of ether in surgical operations antedated that of the other claimants.

In the conclusion of this pamphlet he says of Sir James Simpson, who introduced chloroform and enlarged the domain of anesthesia:

Sir James received the highest honor from his government in recognition of the great service he had rendered humanity. I wish we could say the same of our benefactors and government. Our great republic too often leaves our discoverers and scientists to rest in obscurity and to starve." He then recounts the fates of Wells and Morton dying prematurely from disappoint-

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ment at not receiving pecuniary recognition from Congress, Jackson hopelessly insane, and Long impoverished by the war. "How mournful the fate of these men! America should recognize the labor of Long and his co-workers. Let us as Americans rise above all party, all prejudice, all sectionalism, and demand of our government such an appropriation for the great work accomplished for science and humanity.

A few months later Dr. Long, who for months had been in failing health, died, leaving Dr. Jackson the sole survivor of the four claimants.

In July, 1879, Alexander H. Stephens, member of Congress from Georgia, and a man universally loved in his state, made the annual address to the alumni of the state university. His subject, "What is the chief end of men?" was an appeal to the graduating class to develop in themselves all that was highest and best mentally and spiritually in order that theirs might be lives of unselfishness and service. This address was the prelude to a wonderful tribute to his old friend and roommate, Crawford W. Long.

Mr. Stephens appealed to his audience to recommend that the State Legislature (then in session) petition Congress to accept the

statues of General Oglethorpe and Dr. Crawford W. Long to be placed in the Hall of Representatives at Washington. The alumni met later and adopted the suggestion. Mr. Stephens was desirous, as was Dr. Sims, that Congress should make an appropriation to the family of Dr. Long or some honorary reward for his services to mankind.

Senator Benjamin H. Hill, Congressman Emory Speer, and other public men of Georgia were also deeply interested. The family, after considering the matter, decided that under no stress of circumstances would they apply to Congress for pecuniary recognition. They had undergone privation during the war and reconstruction days, and would again if it became necessary. Dr. Long's greatest desire, shared by his family, was that he should be recognized by the medical profession as a benefactor of mankind.

As is well known, Dr. Marion Sims, when he left Montgomery, Alabama, where he made his wonderful discoveries in the treatment of diseases peculiar to women, came without fortune and almost a stranger to the city of New York, where it was his ambition to establish a hospital for women.

He was so fortunate as to gain the friendship of Henri L. Stuart, who was a native of Vermont, but at that time a resident of New York and a man of wide influence through his connections, at various times in his career, with prominent newspapers. He was an intimate friend of Horace Greeley and was once associated with him on the New York Tribune and later became a warm personal friend of Whitelaw Reid, who succeeded Greeley. Mr. Stuart, who was active in all matters connected with public welfare, interested some of the wealthiest women and public-spirited men of the city in Dr. Sims' plan, and they accorded it loyal support. Dr. Sims himself always felt the successful establishment of the New York Woman's Hospital was largely due to Mr. Stuart's efforts.

It was said¹ that Mr. Stuart was one of the first to propose an Atlantic cable and the site of Central Park, also that he suggested the plan of the present city school-houses, introduced the piano into the public schools, and took a leading part in effecting a consolidation of the ward and public schools of the city. He aided the

¹ *Tribune*, New York, July, 1879.

ladies of the Home Missionary Society in founding the Five Points Mission in 1851, and was one of the founders of the Normal College, as well as figuring prominently in many business enterprises. Through Dr. Sims' advocacy of the claims of the Georgia doctor to priority in the use of ether anesthesia, Mr. Stuart, who had studied medicine and was trustee of a medical college, became an equally ardent supporter. For years he had taken a lively interest in the Ether Controversy, and at first championed the claims of Dr. Horace Wells of Hartford, but afterwards, convinced that Dr. Long had used ether in surgical operations more than two years before Wells, transferred his support to the latter.

Dr. Sims wrote my father to have six photographs made, full length, and of different views. As the latter was a very modest man he postponed the ordeal as long as possible, laughingly saying he had almost rather face a cannon than the camera, but Dr. Sims insisted on having the photographs, as he said the day would come when they would be needed for a statue. A large photograph of my father in a sitting position was also made and from this a life-

sized portrait was ordered to be painted by the artist Frank G. Carpenter. The latter was presented with great ceremony at the State Capitol during the meeting of the Legislature, August 22, 1879.

Mrs. Elizabeth Thompson, of New York City, a philanthropist and a woman of large fortune, was associated with Mr. Stuart in his endeavors to ameliorate the condition of immigrants in the crowded cities of the North. Mr. Stuart spent two weeks in Atlanta to test the sentiment there in regard to receiving colonists and immigrants in Georgia. He found but one sentiment, and that most hospitable.

Mr. Stuart arrived in Athens in the month of September much exhausted by the heat. He was met by a delegation of Athenians who desired to express their appreciation of his interest in one of their citizens. He made an engagement to visit the cemetery the next morning. "I wish," said he, "to stand by the grave of that good and great man, Crawford Long."

The next morning found him paralyzed. He received every attention, but he passed away after an illness of three weeks. A stranger in a strange land, he was nursed

by tender hands, buried by an admiring community, and now rests in the same burial ground as the man whose life and whose labors he so admired.

This sketch would be incomplete if some recognition was not accorded to the efforts of scientific men from all sections of the United States and abroad who, after investigating the records, have through publications and in addresses brought my father's name before the world. Many articles published in newspapers and prominent medical journals carrying weight and influence must be omitted in this brief record, only the most comprehensive pamphlets can be considered.

The most important of the pamphlets favoring Dr. Long's priority in the use of anesthesia was that of Dr. Marion Sims, published in May, 1877, one year previous to my father's death. Until reminded of the fact by this distinguished author, the world had forgotten that in 1854 Dr. Long's claims, presented to Congress by United States Senator Dawson, of Georgia, were convincing enough to block the efforts of Wells, Jackson and Morton, then pending, for an appropriation. It had also forgotten

that Jackson visited Athens, Georgia, in March, 1854, that he might examine into his Georgia rival's claims, and in a communication to the *Boston Medical Journal*, April 11, 1861, recognized the justice of them. This article appeared a few days before the firing on Fort Sumter. The excitement and horrors of civil war absorbed the minds of the people, and minor considerations were forgotten.

The pamphlet by Dr. Sims, being distributed by him abroad as well as in his native country, brought Dr. Long prominently before the world. Shortly after its publication Dr. Sims left New York for Paris and other European cities for the purpose of performing operations in his special field of surgery. He was as widely known and as greatly admired for his signal success as a surgeon in Europe as in America. Endowed with a brilliant intellect and a magnanimous nature he won and held the hearts of men as few have done.

Among the first to give recognition to Dr. Long was Dr. David Cerna,¹ of Coahuila, Mexico, a learned physician of great prominence and wealth, whose address before

¹ *Texas M. J.*, Austin, July, 1885.

the Academy of Science, and a pamphlet in Spanish, made our sister republic cognizant of the merits of the real discoverer.

In "La Escuelar de Medicina, Diario de Informacion," published in 1902, Ramon E. Trevino stated: "It is but fitting that the Legislature of Georgia should place the statue of Crawford Long in the National Gallery of Statues in Washington, but that is not enough. A statue of Crawford Long should be raised in every medical school, in every public institution the world over."

Dr. Luther Grandy of North Carolina became deeply interested. This interest was increased after his removal to Atlanta, where he made a careful examination of the papers in my possession relating to this subject, and had frequent interviews with Mr. Robert H. Goodman, who was one of the party of young men at whose request my father first administered ether for exhilarating purposes. It was to the latter that the young doctor, discussing the adventures of the night before, confided his belief that it was possible with this agent to produce complete unconsciousness, and his desire to do this when performing a surgical operation. It was also through him



DR. GEORGE FOY, DUBLIN, IRELAND, WHO WORKED FOR AND SECURED, RECOGNITION OF DR. LONG'S WORK IN EUROPE.

that the ether was purchased for the first painless operation, with ether as an anesthetic, March 30, 1842.

Dr. Grandy's first pamphlet was a reprint from an article published in the *Virginia Medical Monthly*, October, 1893. The second appeared in the *New York Medical Journal*, July 20, 1895. These irrefutable truths attracted much attention in this country and abroad, especially that of Dr. George Foy.

Dr. George Foy, M.D., F.R.C.S., F.R.A.M., Great Britain, Honorable Fellow of the Surgical Gynaecological Association of the United States and the Virginia and Georgia medical societies, a resident of Dublin, Ireland, is a medical historian of note, a most learned and accomplished man, speaking and writing seven languages. Senior warden of the Episcopal Church, his prayer book is in Spanish, which he translates into English at the services.

He is a profound student of history, thoroughly acquainted with the conditions of American politics and has, I believe, the most vigorous and versatile mind of any man I have ever known. In addition to his mental attainments he has a warm

heart and an intense loyalty to his ideals. This is proved by his espousal of such an apparently hopeless cause as my father's seemed to be in the early eighties. Not until many years later, and after his work seemed almost accomplished, did my sister and I meet him. One can readily fancy our grateful emotions on this occasion.

In a letter written to a Georgia physician he says:

I hunted up authorities in the British Museum Library and finally produced my book in 1886 and today, Dec. 24, 1910, I am thankful to say that Dr. C. W. Long is acknowledged as the discoverer by every one of our anaesthetists in Great Britain and my arguments in his favor have been translated into all the principal languages in Europe. Of one great fact I am sure, to wit: the principal anaesthetists of London recognize his claim to the discovery of general anaesthesia as well founded and in their hospital classes they so inform their students. Dr. Long's portrait occupies an honorable place in the rooms of the Royal Society of Medicine and will hold a similar position in the new building the society is erecting by Trafalgar Square at the cost of 30,000 pounds sterling. No writing or talking can now in London affect his position.

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It has been accepted and acknowledged by writers and teachers.

When King Edward VII recovered consciousness after his operation for perityphlitis his first question was: "Who discovered anesthesia?" and the answer came back: "Dr. Crawford Long, your Majesty."

During his convalescence the King expressed much interest in anesthesia, and learning of this Dr. Foy presented to him his book, entitled "Crawford Williamson Long, Discoverer of Ether Anaesthesia," beautifully printed and bound in dark blue kid, ornamented with gold and lined with blue satin, these being the King's colors. Two similar copies were made, one of them Dr. Foy reserved for himself, the other he presented later to my sister, Emma Long, and myself, when we visited his home. It has been placed with the portrait of Dr. Long and other souvenirs of him in the Smithsonian Institution in Washington.

Of the gift to the King Dr. Foy wrote to us: "The acknowledgment is written throughout. This is the utmost ever given except to his personal friends, and is an

unusual honor, for the ordinary acknowledgments are lithographed over the signature of the official Secretary Knollys."

The proofs of my father's discovery have several times crossed the continent that interested physicians might examine them, but they were to take a longer journey. In June, 1910, Dr. Foy wrote asking that we would permit Sir Frederick Hewett, the anesthetist for King George V, to exhibit these papers at the great medical meeting soon to be held in London, where representatives from all the British possessions including India and Australia would be in attendance. This was an honor we could not decline and, catching the first steamer, we sailed. Dr. Foy warned us that such busy men as the four most noted anesthetists of London, to whom the papers were to be submitted before being placed upon exhibit, could spare but a few minutes in discussing the matter, but so great was their interest, that hours were devoted to the examination of these papers in repeated interviews, to learn the history of this discovery. They developed a wonderful interest in the man himself and his personal characteristics, and learned of his love of reading the best Eng-

lish authors and familiarity with their poets, especially Shakespeare.

The yellowed papers were placed in two large cases in a prominent place in the British Medical Museum, and attracted much attention. At a luncheon given by Sir Frederick Hewett at Princess Restaurant, Piccadilly, Dr. Sisk, who was connected with one of the largest hospitals in London, startled me by asking if I wished to apply to the United States Government for a pension and if his endorsement would be of help. "No," I indignantly replied, "I do not want money but recognition of my father's claims." To my great surprise I learned that two sisters were receiving a pension because their father, an English physician, had administered ether as an anesthetic in his practice. But this was long after its first use in the United States, proving conclusively that the English surgeons were slow in adopting anesthetics to banish pain. This newly acquired knowledge explained Dr. Sisk's question.

I quote a letter received when in London from a distinguished physician, Dr. Bellamy Gardner.

July 31, 1920
126 Harley Street W.

Dear Madam:

As, no doubt, both you and Dr. George Foy must be aware, I am exceedingly anxious to hear the whole account and ascertain all the facts with regard to the first administration of ether for producing "surgical anesthesia" by Dr. Crawford Long in 1842; which not only involves the question of priority in the use of *ether*; but the credit of having been the first man to produce anesthesia by inhalation for surgical operations, even preceding the use of nitrous oxide for dental extractions.

Would it be possible for you to grant me an interview, so that I may have your account taken down in short hand by a clerk, at the same time, on Tuesday next, August 2 at 5:30 P.M., either here in my house, where we should be most pleased to welcome you, or at your hotel, whichever be the most convenient to you.

Before I throw my energy thoroughly into the subject in order to set the history of the discovery of surgical anesthesia before the public in England (not alone the Medical profession) I wish to know whether and to whom you have already furnished the account which you gave me on Tuesday night last at Dr. Dundas Grant's house, as, if Dr. Dudley Buxton has already done so *or* has obtained your assist-

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ance for him to undertake the publication of the facts as stated and authenticated by the documents shown at the B.M.A. meeting, it will not be necessary for me to spend time upon it also. I know you will understand the meaning of this request as I am just now so busy.

If I undertake the investigation and the publication I shall do it as completely as I think it certainly ought to be done in vindication of your father's just rights.

I am, dear Madam,

Yours very truly,

H. Bellamy Gardner.

After replying to Dr. Bellamy Gardner that I had given Dr. Dudley Buxton permission to use the original papers for the sketch which he planned to write, I received the following letter.

126 Harley Street W.
August, 5, 1910.

Dear Mrs. Long Taylor:

I have written to Dr. Dudley Buxton telling him how pleased I am that he has undertaken the management of any measures to promote the publication of Dr. Crawford Long's claims to having introduced ether as an anesthetic. I am exceedingly obliged to you personally for the very great kindness

with which you have devoted a considerable amount of your time to me in interviews, full notes of which I now possess.

After Dr. Dudley Buxton has first drawn the English public attention to the matter, I hope to prove in the full ventilation of the subject among the medical and lay press your Father's just rights.

With very kind regards and thanks

Believe me,

Yours very truly,

H. Bellamy Gardner.

Later Dr. Dudley Buxton, the distinguished English anesthetist, published and sold his book entitled "Crawford Williamson Long, the Pioneer of Anesthesia and the First to Suggest and Employ Ether Inhalation in Surgical Operations."

An extract from an address made by John Chalmers DaCosta, M.D., L.L.D., Gross professor of surgery in Jefferson Medical College, Philadelphia, reads:

December 1, 1911, Dr. Buxton presented to the section of anesthetics of the Royal Society of Medicine an article which seems final and conclusive. It is written with that literary grace and painstaking accuracy which characterize all of Dr. Buxton's productions. In this article

will be found a résumé of Long's life, the story of the discovery and reproductions of various convincing documents.

Buxton's complete and masterly study may be read in the published proceedings of the Royal Society of Medicine, January, 1912. It gains greater emphasis by coming to us across the sea from a gentleman free of any possible prejudice or partiality. I do not stand here courting controversy. I am not obliged to search dusty records in order to clear up controverted points. I do not need to delve in obscure mines after the nugget of Truth, since Young, Foy, Buxton and others have found that nugget and the gleaming metal may be seen and tested by all men.

Among those seeking further information concerning the documents was the representative of Wellcome and Burrows, probably the largest firm of manufacturing chemists in existence. They desired to have them photographed and placed in a medical museum owned by Mr. Henry S. Wellcome, who has collected articles connected with every branch of medicine and surgery from all parts of the world. These will eventually be presented to the city of London to be entitled "The London Medical Museum."

The photographs sought were later sent to him.

To return to American recognition: In 1879 Dr. Marcus Taylor, president of the Mississippi Medical Association, delivered an address before that body advocating the claims of the Georgia doctor. Later this was published in pamphlet form by the association.

The National Eclectic Medical Association at its annual meeting held at Cleveland, Ohio, June 18, 1879, unanimously passed the following resolution:

Resolved that the Association takes this action to declare its appreciation and recognition of the inestimable service rendered to medical science and humanity and to express its consideration of the vast debt of gratitude (hitherto unrecognized) due to the late Dr. Crawford Long of Athens, Georgia, the discoverer of anesthesia, and hereby agrees to cordially unite in any public endeavor to honor his memory.

More than twenty years ago Louisiana testified to the justice of Dr. Long's recognition, as did prominent physicians in the Indian Territory, medical societies in Geor-

gia, Alabama, Virginia, Tennessee, North Carolina and other states. Many letters from physicians and surgeons from every part of the Union bring us similar gratifying testimony.

In 1921 committees were appointed from the fourteen states and the District of Columbia, which compose the Southern Medical Association, to investigate the claims of the four contestants. It was unanimously decided in favor of Crawford Long at the following meeting of this association in 1922. It was again emphasized at the Washington convention, November 12-15, 1923.

Many papers have been read and published relative to the Long discovery, at conventions of international importance. One of the most complete, from a historic standpoint, was that of Dr. Hugh H. Young, who in 1896 was assistant surgeon at Johns Hopkins. Dr. Young, who was at that time in somewhat delicate health, having overtaxed his strength in completing a four years' course at the University of Virginia in two, and in equally arduous labors in a medical course at Johns Hopkins, returned to the home of his youth, San Antonio, Texas, for a brief rest and a visit to his parents, whom I was visiting.

When Dr. Young learned of my relationship to Crawford W. Long he eagerly inquired if the papers concerning the discovery were in my possession and if so would I grant him permission to examine them. Every paper was put at his disposal and among them he found several letters written to me by Dr. John Groves, my father's first medical student. To him a letter was addressed by Dr. Young, who was desirous of settling some trivial points in criticism of Long's methods made by Dr. Morton. In reply Dr. Groves minutely described the operation, in which he assisted his preceptor in the removal of two fingers from a patient, early in 1845, a year and a half before the operation in Boston. "Dr. Long personally administered the ether. The patients did not etherize themselves and superintend the operation as Morton would have us believe." Dr. Young's painstaking methods enabled him to write a most accurate and illuminating pamphlet.¹

In April, 1910, the Georgia Medical Association met in Athens. On the fly-leaf of the program which had been prepared for the meeting was the following dedication:

¹ Reprinted from *Johns Hopkins Hosp. Bull.*, Balt., 1897, viii, 174-184.

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To Crawford W. Long, M.D.
Discoverer of Anaesthesia.

Illustrious son of Georgia, as a physician the exemplar of his profession, as a scientist great by reason of what he accomplished, but as a humanitarian the beloved benefactor of mankind and the inspiration of all who labor in the cause of society, in memory of his contribution to the science of Medicine and of his gift to suffering humanity, this program is dedicated in love and reverence by

The City of Athens, Georgia.

One of the most interesting events of this large gathering of medical men was the unveiling of an imposing granite monument presented by Dr. Lamertine G. Hardman of Commerce, Georgia, to the Jackson County Medical Association, of which he is an honored member. It stands in the center of the public square facing the spot where the first painless operation in modern surgery was performed, the two-story, wooden building with the front room used as a drug shop and the room in the rear as the private office. On each of the four sides of this monument, near the base, is the word LONG. It is also inscribed as follows:

CRAWFORD WILLIAMSON LONG

In Memory of
Dr. Crawford W. Long,
The first Discoverer of Anaesthesia, the Great
Benefactor of the Human Race.
Born in Danielsville, Madison County, Ga.,
November 1, 1815.

Died in Athens, Georgia, June 16, 1878.

Sulphuric Ether Anaesthesia
Was Discovered by Crawford W. Long March
30, 1842, at Jefferson, Ga.
Administered to James M. Venable for removal
of a Tumor.

Given by
Dr. Lamertine Griffin Hardman, in the Name of
His Father and Mother,
Dr. W. B. J. Hardman and Mrs. E. S. Hardman,
lifelong Friends of
Crawford W. Long,
Dr. W. B. J. Hardman being a Physician of
Jackson County.

Erected by the
Jackson County Medical Society, April 21, 1910.

Committee:
H. W. Bell,
J. C. Bennett, M.D
F. M. Bailey.

Unveiled by the
Georgia Medical Association
April 21st, 1910.

Preceding the unveiling the following resolutions were read by Judge H. W. Bell, representing the mayor and aldermen of the town of Jefferson, in meeting assembled:

1. That we express to Dr. Hardman our profound appreciation for this manifestation of his generosity and philanthropy in paying this splendid tribute to the distinguished deceased, thus bringing Jefferson, by this noble act of his, into unusual prominence and world-wide fame and distinction.

2. That we thank the Georgia Medical Association for lending their official presence on this auspicious occasion, thus giving to the world another public authentication of the proper place and person of this great discovery.

Judge Bell was followed by Dr. Will B. Hardman, brother of the generous donor, who welcomed the state organization and other visitors to Jackson County on behalf of the county medical society.

Dr. Thomas R. Wright of Augusta introduced the orator of the day, Dr. Woods Hutchinson of New York City. His address was replete with facts and figures sustaining Long's right to the honor of the discovery. He said in part:

I deem it a peculiar honor and pleasure to be allowed to address this audience on this occasion. Without conceit I may say that I believe I am peculiarly fitted for this pleasant duty, for I am an unusually representative person. Born across the waters, in the country which gave Sir James Simpson, the discoverer of chloroform anesthesia, to the world, I am an Englishman by birth and an American by conviction. I have practiced medicine in three sections of the United States—the North, the South and the West. I am here to say that wherever men speak of the achievements of science an allusion is made to the greatest boon ever made to suffering humanity—anesthesia.

Dr. Crawford Long's discovery was no accident. His real genius and the proof of his greatness lay in his wisdom to see the possibilities, the courage to attempt the experiments, the confidence in his own opinions and in the heartfelt love and sympathy for his suffering patients, which led him to employ the anaesthetic which he had discovered, not once but many times. He was great in his courage, braving the possibility of the fearful consequences which would have followed failure in those early days of experiment. He was great in his love for his profession and affectionate sympathy for his patients. He was great in the breadth of his intellect, the culture of his mind, his familiarity and

appreciation of letters and art and refinement. He was great in his services to his fellowman.

Prior to making his address Dr. Woods Hutchinson sought to learn from physicians in Athens and neighboring towns who were accustomed to call my father in consultation, and from patients whom he had relieved, his methods of treatment of various diseases. One case reported was of special interest to him, that of Mrs. Lucretia McCleskey, a woman then about ninety years of age, whose breast Long had removed for cancer fifty-three years before, in 1857.

Dr. Hutchinson therefore felt justified in declaring:

In many matters he was ahead of his day and generation. He was one of the first to hold the belief that tuberculosis was curable and that fresh air and diet would effect cures of this dreadful malady. He was one of the first to discover that the bilious fever of the South is a form of malarial fever and that quinine is its specific remedy. He was also among the first to treat typhoid patients in almost the identical way in which the physicians of today handle that disease. He was years ahead of the record in the removal of a cancer from the breast of a

woman by the famous Halstead operation. And he added to the sum of human immunity from horror and suffering long before Sir James Simpson used chloroform for the same purpose. Dr. Long here in Jackson County on more than one occasion employed ether as an anesthetic in the cases of childbirth he attended.

Finally, he was not only great in life, but he was greater in death, for the end came to him in service—falling ill while attending a patient, who sits in this audience today, and when he recovered consciousness for a moment before summons came, he thought only of duty and asked, “How is she?” gave directions as to her treatment, then lapsed into unconsciousness. Great in his life, humble and unassuming in his manner, broad in his research, and polished in his culture, faithful and devoted to his work and to his fellows to the very shadows, he was one whom we may all honor and emulate.

Hon. Pleasant A. Stovall of Savannah, later minister to Switzerland, was then introduced by President McArthur of the Georgia Medical Association. The former knew Dr. Long as the family physician during his boyhood days and young manhood. Forty years ago, one holding this office was the confidant not only of the physical but also of the mental ailments of

the patient, and was the safe depository of many a secret sorrow. From his beautiful tribute I quote a few lines:

For 5000 years or more man has been flying from the spectre of pain. The whole object of science has been to soften the process of life, to lessen the ills which flesh is heir to, and to postpone the inevitable hour. Herodotus wrote of inhaling the fumes of hemp to allay passing pangs and Pliny recorded the magic of mandragora. The Chinese in the third century had their own anaesthetic, and Sir Humphry Davy one hundred years ago prescribed nitrous oxide gas to relieve the penalties of local pain. But everywhere in history suffering had cried out for alleviation in vain and surgery had hunted for a truce without avail. The suggestion of the use of anaesthesia for practical work was unheeded.

The fumes of sulphuric ether arose like the incense of the Magic from the Wonderful Lamp to work spells of unconsciousness, but until the middle of the last century the anaesthetic remained only a curious agency in the laboratory—food for pranks of medical students and stimulus for weird antics and strange spells—until the country physician in Jackson County in the small country town of Jefferson applied its power to James Venable and removed a tumor painlessly from his neck. Then it is

not too much to say, the long night of barbarism was broken. The voice of suffering has in a measure been hushed. Surgery came into her own. The opportunity had arrived. Peace and quiet, and suspended animation, supervened and science entered upon her perfect work.

If Crawford W. Long had not found the way someone else must have found it; but it is to the eternal credit of this faithful and skillful man that in the quiet of his village practice he reached an answer to the quest of ages.

What cared he for fictitious notoriety. It was before the days of publicity which bodies forth the form of things unknown and gives to "airy nothing a local habitation and a name."

There was no Georgia Medical Society in those days. The country was sparsely settled. The whole population of the state, white and slaves, was smaller than that of Atlanta, Georgia's capital, today. News, even the most important, did not travel far.

We may not doubt that this Jackson County surgeon proceeded with all possible caution. He was a conservative man, with a general practice. How carefully he counted the pulse of his unconscious subjects; how he trembled at times when he led them unto uncertain shadows where sleep was such a suggestive counterpart to death, we may well imagine. Those of us who knew him well and loved him as he came and

went among us here more than thirty years ago, when his name was a household word, and his step upon the door always a welcome sound, will remember that he was modest, earnest, sympathetic, faithful and true. And so like the faithful man, who knew his work, he was more intent upon healing the afflicted than upon perpetuating his name.

All honor to the man who first applied anaesthesia practically to surgery; who found a new agency for evading pain; who changed a freak into a great scientific aid; who experimented with a sportive agency and turned it to everlasting account; who paved the way from minor incisions to major operations; who built an arena where miracles might be wrought.

Immediately upon the conclusion of the speech of Mr. Stovall, Dr. L. G. Hardman presented Emma, the youngest daughter of Dr. Long, who drew the cord which released the white sheathing about the plain but imposing shaft of Georgia granite, and as the folds slipped down the base of the monument the large audience, representing every section from almost every county in the state from the mountains of North Georgia to the Seaboard, "rose as one man, bared and bowed their heads, and there arose a

cheer, half reverent, half joyful, from their full hearts."

UNVEILING OF THE MEMORIAL AT THE UNIVERSITY
OF PENNSYLVANIA, MARCH 30, 1912.

Seventieth Anniversary of the First Use of Ether
as an Anaesthetic in Surgery.

A handsome bronze medallion serves as a memorial to tell the story of the first operation. It represents the young doctor bending forward over a recumbent patient, dropping ether from a bottle held in the right hand on the towel that partly covers the patient's face and watching intently the patient's respiration. It is the conception of the eminent sculptor, R. Tait McKenzie, a Canadian, but now of Philadelphia. With poetic sentiment he has surrounded a part of the likeness with a spray of poppies (symbolizing the sleep which falls upon the patient) which rises from either side of the plate bearing the words "Class of '39, Pennsylvania," while the circular inscription above his head runs in two lines, "To Crawford W. Long, First to use Ether as an Anesthetic in Surgery, March 30, 1842," "From his Alma Mater." In the field to the left are the dates of his birth and death, 1815 and 1878.

The exercises of the unveiling were held in the Medical Building of the University before an audience composed of members of the faculty, students and visitors. Provost Edgar F. Smith presided and introduced the speakers, Dr. J. William White of the University and Dr. J. Chalmers DaCosta of Jefferson Medical College.

Dr. White's address began as follows:

We have come here today to do honor to the memory of a son of Pennsylvania who was the pioneer, who actually led the world in what was perhaps the most momentous attack upon pain and suffering, and indirectly upon disease itself, ever made in the history of mankind.

He does not go into detail of the specific subject but draws attention to the labors of other sons of Pennsylvania who helped to prepare the field for the introduction of anesthesia, "and later to profit by it and by the discoveries that followed and largely resulted from it."

The interdependencies of the sciences have long been recognized as has the often surprising way in which what is called "pure" science has led to practical results as beneficent as they were unexpected. It seems a far cry from the

experiments of our founder, Benjamin Franklin, with his celebrated kite, to the time nearly one hundred years later, when mankind

Mid deepening stillness watched one eager brain,
With Godlike will, decree the Death of Pain.

And yet these two occurrences of such tremendous importance to humanity are connected, and not remotely, by a chain of scientific events and some of the most important links of that chain were forged by our teachers and alumni. . . .

The University was fortunate in having as one of its first professors, Benjamin Rush, who has been called "The Father of Experimental Medicine," and "The Founder of Scientific Medicine." It was he who wrote in 1812 that he had reached the conclusion that "pain does not accompany child-bearing by an immutable decree of Heaven," and that he hoped "that a medicine would be discovered that should suspend sensibility and leave irritability or the power of motion unimpaired." It may well be that the echoes of such teaching reached and inspired Crawford Long who began the study of medicine only twenty-five years after the expression of this prophetic hope.

In 1838, when Dr. Long came to us, the reputation of the School was so extended that our alumni were filling the most important chairs

in the chief medical schools of the country, two at Harvard, two in New York, two in Winchester, Virginia, four in Baltimore, six in Charleston, and some of our very best with our younger sister, the Jefferson Medical College. It may certainly fairly be said that when Crawford Long came here at the age of twenty-three, he found, as he could have found nowhere else in America, the scientific traditions, the intellectual stimulus to original thoughts and deeds; the atmosphere, in other words, that was favorable, probably essential, to his later achievement.

It is a gratification to think we are participating in exercises destined to add beyond cavil or future question the name of Crawford Long to that list of distinguished Pennsylvanians who have well and faithfully served their profession and their country. There it rightfully belongs and we may feel that his never-to-be-forgotten act will be more than ever an example and a source of pride to successive generations of our students and alumni. So great a feat may never be duplicated. It is not given to many to take the first step in wiping out immeasurable agony and suffering. It is well to think that in looking back the names of Crawford Long and the University of Pennsylvania will always be associated with the first of these, and that if we look forward, there is every reason to hope and believe that those names will be an inspiration

to the thinkers, the investigators, and the discoverers of the future.

The address of Dr. White was followed by the unveiling of the medallion by Dr. Long's second daughter, Mrs. Florence Long Bartow. At the conclusion of this ceremony an eloquent address was made by Dr. John Chalmers DaCosta, representing the Jefferson Medical College.

Now and then a real leader, an original force, a truly great man comes into the world, and moves us as one inspired. He dares to lift the veil which hangs before the mysteries, the veil which lesser men are too ignorant to observe, too indifferent to regard, or too cowardly or incapable to displace. Such a man seeks truth and scorns wealth—courts labor and forgets ease—fights dragons and slays giants—is the slave to duty, is contemptuous of popularity, and finally wrings

the secret of deliverance forth

Whether it lurk in hells or hide in heavens.

He originates. Every institution, says Emerson, "was once the act of a single man."

All such men have earned the reverent love and the eternal gratitude of humanity. Love and gratitude are the debts men owe to the memories

of the heroes of progress, because of their labors, pains, perils and sacrifices. What would have become of the world without such men?

When a man has found a radiant truth, has done some gleaming deed, but has received no tribute of praise or glory, it is a peculiarly grateful thing to see the conscience of the world awaken, and to find men place the name of their long neglected benefactor "On Fame's eternal beadroll."

Seventy years ago to-day, on the 30th of March, 1842, and in the little village of Jefferson, Jackson County, Georgia, anesthesia was first intentionally produced to permit of the painless performance of a surgical operation. This discovery was one of the greatest in the history of science and ranks in importance with the discovery by Harvey of the circulation of the blood—by Franklin of phenomena of electricity, by Jenner of vaccination, by Pasteur of bacteriology, and by Lister of antiseptic surgery. The giving of ether as a surgical anesthetic was not a haphazard accident, but was reasoned out from observations.

The man who first gave ether for surgical purposes was Crawford W. Long, a native and resident of the State of Georgia, and a graduate of the University of Pennsylvania in the class of 1839. There seems a peculiar adjustment to the eternal fitness of things in the fact that a son

of the University founded by the great practical philosopher, Benjamin Franklin, should have made one of the greatest practical discoveries of all time.

Long's great discovery was not made in a splendidly equipped institution of world-wide fame, nor by a professor whose lecture room was packed with eager students, but by a modest, unassuming country doctor, dwelling in an isolated village. Truly, greater things for mankind have come from the hut than from the palace, from the peaceful country than from the roaring town!

We meet to-day in commemoration and celebration: in commemoration of the 70th anniversary of the discovery of ether anesthesia, and in celebration of the noble achievement of a great son of this grand old school.

With sympathetic instinct Dr. DaCosta divined his subject's aspirations and the accomplishment of these aims resulting in a noble life. He closes thus:

Such was Crawford W. Long. The University of Pennsylvania this day hangs his likeness in the Hall of Fame with her noblest sons. He was an honor to his Alma Mater, an ornament to his profession, a glory to his country, and a benefactor of the human race.

No honors could have been more gratifying to my father's family than this public recognition from his Alma Mater. Thousands of Pennsylvania alumni learned of the facts of the discovery through the many special bulletins giving an account of the ceremonies of the unveiling of the medallion. One written by Dr. Allen J. Smith, Dean of the Medical Department, was most noteworthy. In it was embodied photographed copies of some of the affidavits of witnesses and patients of Dr. Long's first operations, perfect in every respect even showing the ravages of time as in the originals. They added much interest. It was as if one were reading the written proofs as we have them. Dr. Charles Johnson, of Champlain, Illinois, was so impressed after reading one of them that he decided to investigate the subject. A long correspondence with my sister, Mrs. Florence Long Bartow, gave him the desired information. She was admirably qualified to do this. Although greatly enfeebled from heart disease, she devoted the last years of her life to assorting the mass of evidence of our father's right to be entitled the "Discoverer of Anesthesia." It would be ungrateful in

me to fail to acknowledge the great assistance her labor of love has been to me in writing this little sketch. Her systematic arrangement of all papers and memoranda and the copying of faded and worn letters has been of invaluable service.

Dr. Johnson, although very young at the time, was a surgeon in the Federal army during the war between the states, and later became an eminent practitioner in Illinois. From this additional information obtained from my sister he was convinced that through ignorance of the facts great injustice had been done. Prompted by this feeling he chose for his theme at the meeting of the Illinois State Medical Association, May 10, 1917, "Dr. Crawford Long, the Discoverer of Anaesthesia." It was an appeal for justice, logically and beautifully expressed. Later, in August, 1917, it was published in pamphlet form and entitled "Lest We Forget."¹

One of the most forcible brief articles was written by Miss Rosa Pendleton Chiles.² It was not only a fine array of facts but so admirably worded that it has been frequently quoted by writers and speakers.

¹ *Illinois M. J.*, Aug., 1917.

² *Munsey's Mag.*, Aug., 1911.

In July, 1903, returning with my sister Emma Long from a trip to Europe, we were a few miles south of Charlottesville, Virginia, when we suddenly felt ourselves thrown with violence against the seats of the car. There were two terrific crashes, glass was shattered, the mighty machine trembled, then all was quiet except for the shrieks and groans of the injured. The victims of the wreck were taken to Charlottesville where they were ministered to by Dr. E. M. Magruder, local surgeon of the Southern Railway Company.

I quote a part of the opening address made by him at a meeting of the Association of Surgeons of the Chesapeake and Ohio Railway, on September 5, 1914:

While a medical student in the eighties I first became acquainted with the term "surgical anaesthesia" and was vaguely cognizant of the fact that some one had discovered it and that there had been a controversy concerning the discovery with several claimants of the honor; but I was not in possession of any data bearing upon their respective claims. I was called to a wreck south of Charlottesville. The injured were brought to Charlottesville for treatment and for a week I had the privilege of ministering

to Mrs. Frances Long Taylor, the daughter of one of the men whose connection with the discovery of surgical anaesthesia has made him famous.

As a consequence I learned much about the discovery, and interest which had been smouldering for years was fanned into a blaze. In the preparation of this paper the facts were obtained through the above-mentioned acquaintance and from writings of those who have profoundly studied the subject in its every detail.

Animated by the desire to be absolutely impartial, the claims of each competitor were investigated by Dr. Magruder, beginning with Dr. Charles T. Jackson, who received many honors from foreign societies and governments. He was not only a physician but a chemist and scientist of high reputation. In December, 1846 he sent a communication to the French Academy of Science claiming the honor of the discovery of surgical anesthesia by ether; that in February, 1842 he had thought ether would be applicable to surgery and in 1846 had suggested its use to Morton in dentistry.

When Morton sought legal advice on October 1, 1846, with a view to obtaining a patent on the anaesthetic use of ether under the name of



TABLET ON WALL OF BUILDING IN JEFFERSON, JACKSON
COUNTY, GEORGIA WHICH MARKS THE SPOT WHERE
DR. LONG'S FIRST OPERATIONS WERE PERFORMED.

Letheon, his lawyer advised him that Jackson was entitled to the honor of the discovery. Jackson (being a physician) not wishing his name to be connected with the patent, resigned his interest to Morton for ten per cent of the profits.

In 1849, when Morton claimed compensation from Congress on account of the Government's use of ether during the Mexican War, Jackson and the friends of Wells (who had committed suicide in 1848), also put in claims and in 1852 a memorial signed by 143 physicians in Boston and vicinity claiming for Jackson the exclusive discovery of surgical anaesthesia, was presented to Congress. Thus was precipitated the Ether Controversy which raged in Congress from 1849 to 1854.

Then came that dramatic moment when the bill was up for the final reading and the friends of Wells and Morton were awaiting the decision, and Senator Dawson arose to announce that Dr. Jackson had written him that none of the three claimants was entitled to compensation. Hearing of Dr. Long's use of ether in 1842, he had investigated his claims and gave him the credit. Dr. Jackson therefore withdrew from the contest. Thus ended the famous controversy.

To Dr. Horace W. Wells of Hartford, Connecticut, Dr. Magruder gives due credit for his efforts to introduce the use of nitrous oxide gas to relieve pain in the extraction of teeth. His first experiments were made December 11, 1844, two and a half years after Long used ether in surgery and a little after Carlton at Dr. Long's suggestion and supervision extracted a tooth, using ether, either in November or early in December, 1844. Quoting from Dr. Welch of the Johns Hopkins Hospital in 1908, he says:

There is no reason to doubt that if Horace Wells had persevered in his efforts he would have been able to perfect the method of producing anaesthesia by this gas and to demonstrate to the world the art of surgical anaesthesia. While he did not achieve this complete success, the credit which belongs to him is large and the name of Horace Wells should be held in honored remembrance.

Dr. Magruder continued: "Knowing that there is in Boston a monument of white marble connected with the discovery of surgical anaesthesia, I wrote to the Mayor and Health Department of that city and among other letters I received the following."

RECOGNITION

Health Department,
Boston, Mass., Sept. 1, 1914.

Dr. E. M. Magruder,
Charlottesville, Va.

Dear Doctor: The inscriptions on the monument in Boston are as follows:

NEITHER SHALL THERE BE ANY MORE PAIN.
TO COMMEMORATE THE DISCOVERY THAT THE
INHALING OF ETHER CAUSES INSENSI-
BILITY TO PAIN. FIRST PROVED TO THE
WORLD AT THE MASSACHUSETTS GEN-
ERAL HOSPITAL IN BOSTON OCTOBER
A.D. MDCCCXLVI (1846)
THIS ALSO COMETH FROM THE LORD OF HOSTS
WHICH IS WONDERFUL IN COUNSEL AND
EXCELLENT IN WORKING.—ISAIAH
IN GRATITUDE FOR THE RELIEF OF HUMAN SUFFERING
BY THE INHALING OF ETHER A
CITIZEN OF BOSTON HAS ERECTED THIS
MONUMENT. A.D. MDCCLXVII (1867)
THE GIFT OF THOMAS LEE

Yours very truly,

F. H. Slack,
Secretary Boston Health Dept.

This monument was erected during Morton's life time and consequently was not to his memory. The subject of it is, "The Good Samaritan."

F. A. Washburn,
Resident Physician, Massachusetts General
Hospital, Boston, Mass.

The claims of Dr. W. T. G. Morton of Boston, Massachusetts, the third contestant in the controversy, are then considered by Dr. Magruder. He also gives an account of the medals and various honors conferred upon him both in this country and abroad. He closes his book with a thorough investigation of Long's claims and a comparison of his work with that of the three others.

The claims of Long rest upon practical demonstration by himself, the result of his own unaided thought and research almost in the wilderness, far from the centers of science and learning, in a country furnishing but few surgical opportunities and no hospital or publication facilities and abounding in professional opposition and public prejudice.

Yet under these adverse circumstances this man made the grandest discovery of the universe, and practiced surgical anaesthesia persistently from the time of his discovery, several years before that of any one else, until his death, undaunted by opposition and superstition. Long can justly claim priority of discovery with immediate practical demonstration and verbal publication of the real agent and its effects, and that unfavorable environment prevented immediate and universal adoption of his discovery.

RECOGNITION

He urged its employment by the medical profession in his vicinity. His operations were as public as they could be when his environment is considered, as there were always others present to witness them; but he had none of the facilities of a hospital nor the aid of world famous surgeons to furnish clinical material for rapid verification, demonstration and publication; there were convenient no newspapers, medical journals, railroads, telegraph or steamboats, to disseminate the news in centers of population and in distant parts of the earth. He made no secret of the agent used nor enjoined secrecy upon others; his discovery was known and discussed in medical and lay circles over a large extent of territory, and if the great scientific centers and if the world at large were ignorant of his work, it was through no act or desire of his.

In 1917 at a meeting of the Anaesthetists' Association in Louisville, Kentucky, Dr. Magruder read a most interesting paper on the personal characteristics and private life of my father.

Dr. Isham Goss, late of Athens, Georgia, a member of the State Board of Medical Examiners, American and State Medical Association and International Association of Railway Surgeons, and so forth, read a

paper at a meeting of the Georgia Medical Association in Macon, April 1908, entitled "Long, His Discovery," which was published in pamphlet form later. While brief, it presented the leading facts of his life and discovery expressed in such finished and elegant style as to captivate all readers of it. Dr. Hansell Crenshaw, editor of the *Medical Consensus*, felt that he "desired to write an adequate and permanent record of Dr. Long's life and work" and produce an interesting tribute to his memory. In the introduction he says:

The life of Crawford Long grows on one the more it is studied and the student feels better for having come in contact with the history of the great physician whose everyday life was an ornament and credit to the race.

To medical men and particularly to the coming generation of them, this narrative should be a stimulus. Every man who practices or expects to practice medicine should study the life of some great physician and Crawford W. Long's character and accomplishments could well serve as a model for all followers of the healing art.

A Canadian, Dr. Donald T. Atkinson, who is a medical historian, has recently

published "Life Sketches of Great Physicians." In the Library of the British Museum he found a number of rare books and manuscripts relating to the subject of medieval medicine, and from this source accumulated material for a most delightful book. Among the biographies he includes one of Dr. Long in which he justifies his claims.

In 1919 Dr. Joseph Jacobs of Atlanta published a brochure entitled "Dr. Crawford W. Long, the Distinguished Physician Pharmacist." It gives delightful personal recollections and private correspondence, and documentary proofs of his wonderful discovery. To this little book the *Medical Record* pays this tribute:

Biographies are the very stuff of history. Rightly written and properly read, they are the most interesting and instructive literature. History is made by men; and the intimate story of these men is the story of the inner mechanism of their history-making achievements. It is this truth which, consciously or unconsciously, makes a well-done biography such fascinating reading: which makes us all so eager to get hold of every little scrap of intimate personal narrative concerning the men whose names are household words.

Dr. Jacobs has given us in the modest little book, a most absorbing and illuminating glimpse into the life and character of a man who is at once an interesting personality and a pioneer in modern medical science; to whose doubly interesting story is added the fascination of a long drawn-out controversy. Around the history of the introduction of ether as an anesthetic there has always been a good deal of confusion and uncertainty; and for that very reason it has been a most alluring story, quite apart from the excitement of the discovery itself.

It must be said that Dr. Jacobs makes out a very powerful case for Dr. Long as the discoverer of ether anesthesia. The documentary evidence of his priority over other claimants is set forth in convincing order and undeniable authenticity. Especially convincing is that part of the record which pertains to the endorsement of his claim by the Georgia Medical Society and the physicians of Athens, where Dr. Long resided. To the unbiased mind the chain of evidence leaves no doubt as to the genuineness of Dr. Long's claim to priority.

From the author's standpoint, this establishment of Dr. Long's claim is unquestionably the most important feature of the book. It is, in fact a noble effort of a loyal man to secure for his friend the place in the Hall of Fame to which

he is thoroughly persuaded he is entitled. And this task Dr. Jacobs has well achieved. To our thinking, however, the book has a charm and an interest, quite apart from and altogether transcending its controversial aspect. It is the lovingly told story of a beautiful life told with all the intimate detail, and withal with the instinctive delicacy of a close and loving friend. Reading it, we, too, love and understand Dr. Long. Whether or not he was prior to this or that claimant in his discovery of anesthesia becomes for us a trivial matter; the all-important thing is that that great, gentle soul spent his life in the service of suffering humanity, just as he lavished it on his devoted family, and that out of this unselfish spirit of service came his great pain-conquering discovery.

UNVEILING OF MONUMENT AT THE UNIVERSITY
OF GEORGIA

On the afternoon of June 14, 1921, on the occasion of the one hundred and twenty first commencement exercises of the University of Georgia, was unveiled a handsome medallion monument in memory of Dr. Crawford Long. The monument, on the main driveway and in front of the Library, faces the old Chapel where eighty-six years before he had graduated. Large delegations were

present from Danielsville, his birthplace, and from Jefferson, where he first operated with ether as an anesthetic. Many alumni and visitors from all parts of the state attended, an immense audience.

Chancellor Barrow, who was a boyhood patient of my father, presented the chairman of the trustees' committee in charge of the exercises, Judge Richard Russell, who told of his impressions as a boy of the famous physician, of his great personal dignity and his gentleness and refinement. He declared that this day would be long remembered; that it marked a distinct point in the movement to compel the world to recognize the truth and justice of Dr. Long's claims to priority in the discovery of anesthesia.

Judge Russell paid a merited tribute to Dr. Joseph Jacobs through whose generosity this beautiful medallion came into the possession of the University. He spoke of the years of untiring work of this former pupil of Dr. Long to present his claim for priority. He also paid tribute to Dr. Hardman of Commerce, who some years ago erected a splendid granite shaft in the city of Jefferson almost upon the very spot



MONUMENT TO CRAWFORD W. LONG AT THE UNIVERSITY OF
GEORGIA.

where the first operation was performed by Dr. Long, March 30, 1842.

Dr. Frank Boland of Atlanta, one of the most eminent surgeons of the state, appealed in a masterly manner to the alumni of the institution to do their duty towards asserting the truth as to this discovery and maintaining it.

During its history of nearly a century and a quarter the University of Georgia has given to the state and the nation many men who have become celebrated in law and letters, in the pulpit and the schoolroom as orators, journalists, soldiers and statesmen, but not many who have achieved fame in medicine. But here is a physician given not only to the state and to the nation but to the whole world, one whose contribution marks him as one of the foremost benefactors of mankind. If this college had produced no other alumnus to reflect glory upon it than Crawford Long, such an accomplishment alone would make the state owe the institution an adequate endowment.

The three outstanding events in the history of surgery have been its establishment as a science by John Hunter in the latter part of the eighteenth century, the discovery of anesthesia by Crawford Long and the application of

Pasteur's germ theory by Lord Lister, in the middle of the nineteenth century.

He then dwells upon the immense value to the human race of Dr. Long's discovery, and says:

Other anesthetics have been found and different methods of administration have come into practice during the seventy-nine years which have elapsed since Long first employed ether to conquer pain, but in spite of this no better or safer way of anesthesia exists to-day than the simple one we see depicted on the medallion which is unveiled on this occasion. How then can we express our gratitude to our fellow alumnus, Dr. Joseph Jacobs, for the beautiful mile-stone which he has planted here to-day on the road toward convincing posterity of the truth of this discovery? It is from such deeds that we may hope to gain for Crawford Long his just reward . . . The alumni of the University, Dr. Jacobs, thank you for your generous and timely act in placing this handsome monument on the campus, it not only stands as a worthy memorial to your beloved instructor and to one of Georgia's citizens, but will also be a constant reminder to us of your untiring and unselfish efforts to secure for him the crown of immortality which he so richly deserves. Fellow alumni, three conspicuous qualities of Dr. Long's

character should be an example to us. They were his power of keen observation, his courage and his gentleness. By the first two he was enabled to attain his brilliant success, and by the last he has won our undying admiration and love. Being a gentleman he could never be a charlatan. Not satisfied with things in his day, not satisfied to see humanity suffer, he sought and found means to prevent it.

Dr. Garnett Quillian of Atlanta spoke of Dr. Long as a charter member of the Georgia State Medical Association, who at its first meeting in the early fifties addressed the association on the subject of his discovery and submitted the evidence of his claims to priority which were enthusiastically endorsed by the body. Always interested in the Association, he attended its annual meeting a few weeks preceding his death.

Dr. Quillian's address was most eloquent. He enumerated the various honors which had been paid Dr. Long in this country and abroad, one being the Memorial Hospital upon the campus of the University of Georgia.

The measure of true greatness is determined by what one does, the spirit in which one does it,

and its usefulness to the world. Gauged by these standards Crawford Long is truly great. His spirit of dignity, modesty, refinement and meekness was altogether worthy of his accomplishment. He sought not honors or gifts, but only to be a benefactor to humanity, and the usefulness of ether to the world needs of no exposition.

Dr. Hansell Crenshaw of Atlanta was to have spoken on "Dr. Long's Conquest of Pain," but at the last moment found he could not be present in Athens, and Judge Andrew Cobb was requested to take his place on the program. As with the other addresses I quote only a part. He considered first the desire to conquer that which opposes (a trait implanted in every human breast), in its selfish aspects because when accomplished it has added nothing to the happiness of man; and, in contrast, this desire stimulated by a worthy motive.

When one chooses the calling of physician his aspirations must be high and his selfishness must be under control. His aspiration is to save the living from death and soothe the pain of the sufferer while he lives. Great is the man who dedicates his life to the relief of human suffering. Greater still is the man who by obser-

vation and research discovers that which conquers pain. Pain is a conqueror unless he be met and subdued. Crawford W. Long, by his discovery, for the benefit of all mankind, made proclamation to the conqueror pain:

Ruin seize thee, ruthless king!
Confusion on thy banners wait!

Let us this day as we dedicate this monument to the memory of our distinguished brother alumnus, pledge ourselves anew to the cause of the recognition of his discovery and continue the fight until every judgment of every misguided tribunal to the contrary has either been set aside and declared void, or shall be ignored by the justice loving people of the world.

At the conclusion of Judge Cobb's remarks, Dr. Joseph Jacobs, the generous donor of the medallion, presented it formally to the University as follows:

Mr. Chairman, Ladies and Gentlemen:

That I have been permitted to present this monument to the University of Georgia and that her trustees have accorded me the honor of its acceptance fills my heart with sentiments of gratitude and pride.

My early boyhood and all of my adolescent years were spent in this good city of Athens and of her I can truly say:

Wherever I've roamed, what other realms to see,
My heart, untravelled, has fondly turned to thee.

It was during those years of my life in Athens that Dr. Crawford W. Long, whose wonderful achievement we here commemorate, was my employer in pharmacy and my much respected tutor. The countless acts of friending by which he then benefited me, I have, in all the after years, treasured in recollection with "miser care." And, hence, in considering how I might in appropriate form attest some small measure of my appreciation of the man and his invaluable contribution to the welfare of humanity, I thought these shades in which he pursued his academic studies—here, at his alma mater—old Franklin College—the proper place for a record of its expression.

Dr. Crawford W. Long was a graduate of this University of the class of 1835. Although he completed a full medical course at the University of Pennsylvania and benefited by practical experiences in the hospitals of New York City, yet I have often thought, that, from the spirit of the motto of our University, the spirit of research—"et docere, et causas rerum exquirere" (both to teach and to seek out the causes of things), he formed the habit of clear and patient observation of facts, which enabled him in the exercise of his deeply humane and sympathetic nature, to make his unexcelled discovery in the

realms of the curative science and for which he will be known in all future times as the conqueror of surgical agony.

The day, March 30, 1842, on which Dr. Crawford W. Long discovered ether anaesthesia will be known in the annals of the world as the date of the world's most important medical discovery.

Mr. Chairman, it affords me great pleasure to tender this monument and medallion to the University of Georgia.

Replying for the trustees, Judge Russell gracefully accepted the gift and then the medallion was unveiled by Mrs. Eugenia Harper, daughter of Dr. Long, the audience rising to its feet and standing at respectful attention during that solemn moment.

Dr. John Wesley Long of Greensboro, North Carolina, speaking on "Crawford W. Long, the Discoverer of Ether Anesthesia" before the Southern Surgical Association, at Charleston, South Carolina, December 11, 1924, called attention to the reliability of the available data and concluded:

We must acknowledge that the credit of priority belongs to Crawford W. Long. He performed his first operation under ether before Morton had even graduated as a dentist, and four and a half years before Morton claims to have used

"letheon" as an anesthetic, and two and a half years prior to Well's use of nitrous oxide.

MEMORIAL IN DANIELSVILLE

On April 15, 1926, in picturesque surroundings and with simple ceremonies, a monument in honor of Dr. Long was unveiled in the quaint courthouse yard of his birthplace Danielsville, Georgia. The monument is a granite boulder with a bronze inset inscribed:

Dr. Crawford W. Long

Nov. 1, 1815—March 30, 1842

the date of his birth and the date of his discovery. Three personal friends of Dr. Long, Dr. Joseph Jacobs of Atlanta, P. H. Bell of Decatur, and Dr. L. G. Hardman of Commerce, Georgia, addressed an audience of several hundred persons.

Mr. Bell recalled the events in the personal life of his friend and referring to the national recognition of Long's priority in the discovery of ether anesthesia, said:

However proud we may be that finally the great Federal Government has placed the seal of its approval on the claim that a native son of



(Photograph, C. Underwood & Underwood.)

UNVEILING OF CRAWFORD W. LONG'S STATUE IN STATUARY HALL, WASHINGTON, D. C

Georgia, and not another, made this discovery, and this after more than half a century of controversy had beclouded his fame, it should be a source of gratification to us all that our own people have never doubted the authenticity of his merit.

Through the efforts of the Crawford W. Long Memorial Association, of which Dr. Frank K. Boland is president, there was unveiled on March 30, 1926, in Statuary Hall at the national capitol, an enduring effigy of him who shares with Lister the glory of making modern surgery possible. The statue of Dr. Long is the first to occupy the Georgia niche in the national hall of fame.

The noted sculptor, J. Massey Rhind of New York, created from a small crayon portrait of Crawford Long a most artistic statue. The pose of the figure has both grace and strength. The brooding thoughtfulness of his face, "the resolute patience which kept his judgment suspended until all the facts were acquired and analyzed, the composure that surrounded him, the watchful solicitude that was anxiety of heart, these qualities both personal and professional" have been perpetuated in the marble.

The legend on the pedestal reads as follows: "Georgia's tribute: Crawford W. Long, M.D., discoverer of the use of sulphuric ether as an anesthetic in surgery on March 30th, 1842, at Jefferson, Jackson County, Georgia, U. S. A.

"My profession is to me a ministry from God."

The statue is of Georgia marble, the pedestal being donated by the Georgia Marble Company. It was carved by James K. Watt.

Dr. Frank K. Boland presided at the ceremonies of unveiling. They were opened with an address by Joseph Jacobs, PH.M., D.SC., representing the pharmaceutical profession. The statue was then unveiled by the daughters of Crawford Long, Mrs. Frances Long Taylor and Miss Emma Long, and was presented to the State of Georgia by Richard B. Russell, chief justice of the Supreme Court, State of Georgia, and president of the Board of Trustees of the University of Georgia, from which Dr. Long received his degree of Master of Arts in 1835.

The statue was next presented to the United States by Attorney-General Napier, acting for Governor Clifford Walker of Georgia, and was accepted by Senator W. J. Harris.

Dr. George W. McClellan, due to the absence of Senator George Wharton Pepper represented the University of Pennsylvania, from which Dr. Long received his M.D. in 1839, was answered by L. G. Hardman, M.D., for the Medical Association of Georgia, Rebecca Latimer Felton, former United States Senator from Georgia, William Hamilton Long, M.D., Secretary of the Southern Association of Anesthetists, and Miss Virginia Gibbes, representing the nursing profession.

The next address, by Hugh H. Young, M.D., of Johns Hopkins Hospital, for the medical profession of America, described the first discovery of the use of anesthesia in surgical operations and drew a vivid contrast between the barbaric tortures of surgery prior to that discovery and the painlessness of today.

Dr. Young's address paid full tribute to the importance of Long's gift to suffering mankind, and at the same time showed, beyond question, that full credit is due him for being the first to use anesthesia in a surgical operation.

Describing the effects of this discovery, Dr. Young says:

In comparison with surgical anesthesia all other contributions to medical science are trivial. . . . In the surgical textbooks before 1842 one finds described only minor procedures and emergency operations. Within ten years the changes wrought were immense; splendid new conquests over disease by surgery were reported. Surgery was delivered from the horrors of pain and infection and, like an animal freed from a black dungeon of despair, bounded forth into the pure light of science.

After describing the horrors of conscious surgery, Dr. Young continued:

This was the routine in the homes of the rich where attention de luxe was possible. What was done in the homes of the poor and, most of all, the operating shambles of the battlefield? Amputations were often made with a swift blow of the axe or meat cleaver followed by a red hot iron to stanch the flow of blood as they dared not use ligatures to bind the bleeding arteries for fear of septic poisoning . . .

Since the beginning of medical history our records show that the never despairing hope of physicians was to conquer pain and to be allowed to carry out surgical procedures with tranquil thoroughness rather than in a mad dash against pain and death. . . . Mandragora was used by both Greeks and Romans for hun-

dreds of years to produce sleep and Asiatics employed hashish to dull consciousness of pain. Later opium and hemlock were used.

It was not until the early chemical discoveries of hydrogen, nitrogen, oxygen and nitrous oxide, in the latter part of the 18th century, that the way was found for a scientific anesthesia. Sir Humphry Davy said in 1800: "Since nitrous oxide is capable of destroying pain it may be used in surgical operations," and twenty-five years later Hickman anesthetized rabbits with nitrous oxide and carried out many operations successfully upon them without a struggle. But these demonstrations went unheeded; the surgical theater continued to be a torture chamber!

But nitrous oxide and sulphuric ether, neglected by the medical profession, were seized upon by the populace who found in them a pleasant means of becoming exhilarated. . . . The knowledge of the interest in these drugs reached even to the distant rural hamlets. In one of these, Crawford W. Long, . . . fresh from the University of Pennsylvania, knew of the exhilarating properties of these drugs and frequently furnished ether to young men who met at his office for an "ether frolic" in the winter of 1841-1842.

Dr. Young described the operation on Mr. Venable and continued:

Here then was the first successful attempt to render a patient insensible to pain during a surgical operation! The beginning of a new era of incalculable relief of human suffering, an era which was to revolutionize surgery and make it a million times more efficient in alleviating human ills. Long did not rush into print, but like a painstaking, modest scientist, quietly continued his work. His meager practice only furnished him a few surgical cases each year, which he continued to operate upon under ether, while he bided his time, waiting for a major operation before publishing his claims to a discovery which he well realized would revolutionize surgery and startle the world. . . .

But are Long's documents genuine, complete, and convincing? I can personally testify that they are. In 1896, I chanced to meet Mrs. Fanny Long Taylor, who amazed me by saying that her father was the discoverer of surgical anesthesia. I had heard only of Morton, in whose honor, as the "discoverer of anesthesia" a great celebration was in preparation in Boston. I was thrilled when she said she could put Doctor Long's documentary proofs in my hands, and when a few days later I hurried through his time-stained papers, case-histories, account books, affidavits from patients, attendants, physicians in his town and elsewhere in Georgia, all of which furnished overwhelming proof of the originality of his discovery

and his successful employment of ether to produce complete anaesthesia in numerous operations, I asked permission to present again his claims in greater detail.¹

Dr. Young concluded his address by summarizing the immense benefit which promptly accrued to surgery and to humanity by the discovery of anesthesia:

Surgery was unshackled, physicians returned to the operating table, the shrieks of the torture chamber ceased, and the operating amphitheater became a place of quiet scientific endeavor to master the ravages of disease with the humane use of the knife. Conditions, heretofore hopeless, were brought under the sway of surgery; surgeons rapidly acquired a daring, a dexterity, and exquisite skill that has resulted in the most amazing progress witnessed in any art.

Before anesthesia, only 34 cases a year were operated on at the Massachusetts's General Hospital. In five years the number had tripled, and in fifty years the increase was a hundredfold.

¹Dr. Young presented Dr. Long's claims in a paper read before the Johns Hopkins Historical Society November 8, 1896. Later it was published with additions as a pamphlet entitled: "Long, The Discoverer of Anesthesia. A Presentation of his Original Documents."

In the surgical textbooks before 1842 one finds described only minor procedures and emergency operations. Within ten years the changes wrought were immense; splendid new conquests over disease by surgery were reported. The advance was rapid, but not until Pasteur's great works on spontaneous generation (1862) and diseases of silkworms in 1865 and Lister's announcement of his discovery of surgical antiseptis in 1867 was the capstone placed upon Long's work of twenty-five years before. . . .

Disease, now explained by the germ history, rapidly fell before one masterful research after another, . . . every corner of the human organism was finally brought under the searching rays of scientific medicine.

May 16, 1927, The American Medical Association (membership, 96,000) met in Washington, D. C. At noon, exercises were held in honor of famous members of the medical profession. Wreaths were placed on the statues of Benjamin Rush and Samuel Gross, on busts of Walter Reed and W. C. Gorgas and on a painting of John S. Billings. Simple but impressive ceremonies took place at the statue of Crawford Long at the capitol. Dr. Groover, one of the officers of the Association, delivered an eloquent address. Dr. Charles Mayo the emi-

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nent surgeon with a few appropriate remarks placed a wreath on the statue; on either side of the base were beautiful floral tributes, one from the Association of Anaesthetists of the United States and Canada.



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